

Boundary Work:

The construction of boundaries between
'alternative' and 'conventional' cancer
treatments in New Zealand

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Abstract

This thesis examines the multiple and shifting boundaries between alternative and conventional medicine, demonstrating how ‘boundary work’ is a fundamental process in the (re)shaping of networks of human and nonhuman actors. Social constructionism and actor-network theory are used to explore some of the strategies used to maintain and contest the boundaries between ‘alternative’ and ‘conventional’ cancer treatments.

Media reporting of the Liam Williams-Holloway case is used to illustrate the way facets of the print media construct oppositional representations of ‘alternative’ and ‘conventional’ medicine. It is argued that these accounts tend to naturalise differences between ‘alternative’ and ‘conventional’ medicine and consolidate oppositions such as scientific/unscientific, symptomatic/holistic, invasive/natural. Analysis of interviews with selected ‘alternative’ and ‘conventional’ health practitioners in Christchurch indicates how these ‘natural’ distinctions are disrupted in the rhetorics of health practitioners who are involved in strategically consolidating and contesting these oppositions constructed by the media. It is argued that their ‘talk’ illustrates the complexity, connectivity and contradictory features of their professions. This is evident in the use of the discursive strategies of the ‘other’ to legitimise their practices.

The thesis focuses on illustrating that distinctions between ‘alternative’ and ‘conventional’ medicine are the outcome of particular representations and are variable with respect to time and location. Moreover, ‘alternative’ and ‘conventional’ medicine are continually produced by both human (e.g. practitioners, patients, journalists, politicians, lobbyists) and non-human actors (e.g. imaging technologies, diseases, medications). It is argued that institutional mechanisms such as medical journals, ethics committees, pharmaceutical companies, and medical councils actively regulate the ongoing consolidation of the line between what treatments are considered valid/invalid, effective/ineffective, scientific/non-scientific, and ensure the dominance of ‘scientific’ method and evidence in the medical encounter. This thesis argues that classification and representation of health care practices is a result of past and present human activity, a

result of boundary work. It illustrates how 'alternative' and 'conventional' in medicine are a product of both media representations and the discursive practices of practitioners.

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Chapter One

Pushing the boundaries

The multiple and shifting boundaries between 'alternative' and 'conventional' medicine

I've a suspicion that everybody's gone too far in a number of directions. The court may have gone a bit farther than it's entitled, the police a bit too far, Children's and their Young Persons Service too far - everybody is pushing the boundaries (sic).

(Judge Edward Blaikie on the Liam Williams-Holloway case, *New Zealand Herald* 01/03/1999)

1.1 Introduction

'Alternative' health practices have become increasingly prominent in Western industrialised countries over the last thirty years (see Jingfeng, 1987; Coward, 1989; Fulder, 1992; Willis, 1994; Goldbeck-Wood et al, 1996; Eisenberg et al, 1998; Eskinazi, 1998; Saks, 1998; Dew, 1998). There is evidence that increasingly consumers are choosing 'alternative' therapies either in addition to, or in combination with, 'conventional' medicine (Eisenberg et al, 1993, 1998; Saks, 1994; MacLennan et al, 1996). In addition to this resurgence in consumer interest in 'alternative' modalities, health insurance companies in the US, Britain, Australia and New Zealand¹ now fund selected 'alternative' therapies such as chiropractic, osteopathy, acupuncture, homoeopathy and healing touch therapy for certain medical conditions (Goldbeck-Wood et al, 1996; Cassileth, 1999). This increase in the usage and prevalence of 'alternative' therapies has in turn led to the commodification of 'natural' products and 'alternative' remedies, as companies attempt to 'ride the wave of natural medicine'. This trend can be

¹ In New Zealand ACC funds Chiropractic, Osteopathy and Acupuncture for certain medical conditions (Consumers Institute, 1997).

seen recently in New Zealand with consumers spending over \$300 million on 'natural' medicines in 1997 (Consumers Institute, 1997). Moreover, in 1998 the average growth rate in sales of herbal products worldwide was 12-15 percent (Wilkinson, 1998:2). This growth in the production, marketing and consumption of 'alternative' medicines has to a certain degree normalised 'alternative' products and practices, with most food retailers and pharmacies now stocking herbal remedies, vitamin supplements and aromatherapies (DerMarderosian, 1994). These developments, among others, have blurred the distinction between 'fringe' and 'mainstream' medicine, making it increasingly clear that 'alternative' and 'conventional' as social categories do not reflect nuances either within or between 'alternative' and 'conventional' modalities. This has precipitated questions regarding both the benefits and limitations of the primacy of biomedicine in health provision, and the possibilities within alternative paradigms of healing. The result has been heated public debate over the relationship between, and the roles of, 'alternative' and 'conventional' medicine. This debate is vividly illustrated in New Zealand by the recent controversy over the treatment of child cancer patient Liam Williams-Holloway.

These developments have occurred in the context of growing uncertainty about the benefits of science, scientific development (Kutukdjian, 1998) and certain products of biomedical science such as genetically modified food, immunisations, third generation oral contraceptives and cloning (Koch, 1999:1091). There has been considerable debate over 'acceptable' levels of risk, the rate at which scientific developments occur, and the potential benefits of new technologies (Angell, 1996). Some commentators are suggesting that concerns about the 'risks' of scientific development and biomedical technologies have contributed to the increasing popularity of organic foods and 'natural' medicines (Walker, 1999:226-227). Others believe that it is not fear of science driving the popularity of 'natural' medicines, but rather the ability of 'alternative' modalities to fill some of the voids left by 'conventional' medicine such as self-awareness, individualised preventative care and patient-controlled healing (Coward, 1989; Bakx, 1991; DerMarderosian, 1994).

This thesis is about the strategies certain actors use to make sense of these recent developments in health provision. In particular, I am interested in the multiple and shifting boundaries between ‘alternative’ and ‘conventional’ medicine with a focus on illustrating how ‘boundary work’ is a fundamental process in the (re)shaping of networks of human and nonhuman actors. I am interested in the way particular actors are attempting to reposition themselves within the health care network, and how others are attempting to limit this repositioning by articulating and thus reconstructing boundaries between ‘alternative’ and ‘conventional’ medicine.

This thesis involves examining the role of the media in generating ‘difference’ between ‘alternative’ and ‘conventional’ medicine; differences that are often taken for granted as ‘natural’ or inherent. It is argued that the media play an important role in the construction of oppositional representations of ‘alternative’ and ‘conventional’ medicine such as scientific/unscientific, symptomatic/holistic, invasive/natural. Interviews with selected ‘alternative’ and ‘conventional’ health practitioners illustrate how health practitioners are involved in both strategically consolidating and contesting the oppositions constructed by the media (see Chapter 5). It is argued that their ‘talk’ illustrates the complexity, connectivity and contradictory features of their professions, evident in the use of the discursive strategies of the ‘other’ to legitimise their practices. My interest is in how certain actors use ‘science’, ‘nature’, ‘holism’, ‘ethics’ ‘evidenced-based’ medicine and ‘anecdote’ to re-assert blurred boundaries, while others seek to disrupt them.

This thesis indicates that distinctions between ‘alternative’ and ‘conventional’ medicine are the outcome of particular representations and are variable with respect to time and location. It is argued that classification and representation of health care practices is a result of past and present human activity, a result of ‘boundary work’.

1.2 Defining ‘alternative’ medicine

Let us begin with some consideration of terminology. Should one use ‘traditional’, ‘unorthodox’, ‘alternative’ or ‘complementary’, and what connotations do these hold? The most common labels are ‘complementary’ and ‘alternative’, which generally

encompass the systems of medical knowledge in China, India, Africa and among Native Americans, as well as particular sets of practices within those systems such as herbal medicine, acupuncture, dietary principles and spiritual practices. Further, 'alternative' medicine often encompasses hypnosis, osteopathy and chiropractic. It is frequently contested as to whether some of these practices are 'alternative' or 'mainstream' (Eskinazi, 1998:1). Confusion about what is 'alternative' has been amplified by the integration of certain 'alternative' techniques by medical practitioners (see Dew, 1997, 1998). Secondly, Fuller (1989:67) argues that certain alternative modalities such as chiropractic, osteopathy and acupuncture have aligned themselves with conventional medicine, muting their metaphysical overtones in an attempt to increase their compatibility with the biomedical model. It is argued that this process of assimilation has been exacerbated by professionalisation and in particular the establishment of qualifications, licensing and regulatory bodies in certain alternative modalities (Saks, 1998:210). These developments have disrupted dichotomous representations of 'alternative' and 'conventional' practices. The result has been attempts to justify practices as 'alternative' or 'conventional' in accordance with access to state funding, access to insurance rebates, those accepted and used by the public, those condoned by the medical community and so on (Eskinazi, 1998). However, these criteria are limited, as they are rapidly changing and are inconsistent internationally. Further, there is no agreement among social commentators as to what level of insurance coverage, or degree of state funding must be met before a profession is considered 'conventional', notwithstanding the problem of multiplicity within particular modalities.

The problem with attempting to establish a lasting definition of alternative medicine is that what is 'alternative' is variable over time and space. Boundary work, such as that examined in this analysis, has constructed 'alternative' modalities as static, with social and cultural shifts influencing the waxing and waning of their popularity (Eskinazi, 1998). This has resulted in attempts to produce a durable list of which modalities are essentially 'alternative' or 'conventional', a list that invariably fails the test of time.

In this thesis, ‘alternative medicine’ and ‘conventional medicine’ are viewed as continually evolving concepts that exist primarily as a means of ordering health practitioners. The categories of ‘alternative’, ‘conventional’, and recently ‘complementary’, are used to reduce a multiplicity of complex practices to an either/or opposition. This construction of ‘difference’ has a regulatory effect, which sustains occupational territories.

I will use ‘alternative’ in this thesis rather than ‘complementary’ as the latter is suggestive of alternative modalities as ‘add-ons’ or complements to a core set of genuine medical practices. This clearly constructs these practices as palliative, rather than effective in their own right. I will also use the term ‘modalities’ (instead of medicine) in some cases as it better reflects the diversity of practices that are often homogenised together as ‘alternative medicine’.

We are still left with the question, what is an ‘alternative’ treatment or practice – what am I referring to when I use the term ‘alternative medicine’? What is an alternative practitioner – does this mean anybody other than a doctor or a nurse that provides health care? Where does this place the physiotherapist, the chiropractor and the midwife? Is taking a vitamin supplement counted as using an alternative treatment, is aromatherapy counted, or does ‘alternative medicine’ only refer to the less common treatments such as frequency machines, homeopathic solutions and macrobiotic diets? Should we distinguish between the aromatherapy available in the supermarket and that provided by an aromatherapist? Can we view any product that seventy-five percent of the population use on a regular basis as an alternative? Where do we draw the line? The answer to these questions is simple – we don’t need to. The objective of this analysis is to establish where and how certain actors draw their line and the strategies they use to persuade others of the existence of the boundary between ‘alternative’ and ‘conventional’ health practices. My interest is in the processes whereby certain practices *become* ‘conventional’ or ‘alternative’, how this position is both reproduced and contested. In the next few chapters we will see media commentators and health practitioners constructing a boundary between what they see as ‘alternative’, ‘conventional’, ‘complementary’, or just plain

quackery. By analysing the strategies they use we can come to a better understanding of how exactly these categories are produced and what resources are used to construct them.

1.3 The significance of boundary work

The concept of 'boundary work' has been used relatively frequently within the social sciences. It has formed the basis for analysis of the construction of 'home' and 'work' (Nippert, 1996), inequalities within the work place (Vallas, 1998), the 'social' and the 'natural' (Gaziano, 1996), and the differentiation between 'scientists' and 'non-scientists' (Hess, 1992). These studies have sought to illustrate, just as I do here, the processes that place, maintain and challenge particular social categories. 'Boundary work' is an important social process because it produces what we view as 'alternative' and 'conventional' medicine. These social categories are important because they determine which health services are made available, which treatments are viewed as legitimate, and which actors are permitted to deliver these. What the state deems as valid or invalid determines the kind of treatment that we, as clients, receive within the public health system. Over the last two centuries the practitioners of allopathic medicine have been established as the only formally registered group of state recognised medical practitioners. Moreover, this alliance has been cemented by the development of an institutionalised means of gauging validity (the randomised controlled trial) as well as standards of care and ethical guidelines based on the biomedical model. These elements are all part of the boundary work done by the medical community in order to regulate who provides, and receives, which treatment for which disease. The objective of this research is to develop an understanding as to how both the media and specific health practitioners contribute to this ongoing process of boundary construction.

My analysis of the process of boundary construction considers the recent debate about the treatment of child cancer sufferer Liam Williams-Holloway as a case study. When Liam's health worsened after receiving chemotherapy for the rare childhood cancer,

neuroblastoma², his parents refused to consent to further chemotherapy, choosing instead to pursue ‘alternative’ cancer treatments. The state responded to this by making Liam a ward of court in an effort to ensure that he received chemotherapy. Despite the eventual reversal of this decision, Liam’s case highlighted the implications of the often unseen regulatory processes associated with ‘boundary work’. Parental rights were initially overridden as a result of disagreement about the validity of particular ‘alternative’ cancer treatments. This sparked a heated public debate, mediated by the mass media, over how treatments should be validated, with various ‘experts’, politicians and interest groups questioning the ‘hegemonic’ nature of biomedicine and the ‘quackery’ within alternative medicine.³

It is this process of boundary construction that is under scrutiny within this thesis. How is it that ‘alternative’ and ‘conventional’ medicine are differentiated? How do certain representations and rhetorical strategies produce these social phenomena? How do media reports and the ‘talk’ of health professions generate ‘difference’ and what impact does this have on the position of particular actors? The Liam Williams-Holloway media debate is used to illustrate how the social categories of ‘alternative’ and ‘conventional’ medicine are generated. This is an analysis of how certain positions are represented, an examination of the discursive practices and rhetorical strategies of health practitioners and the media as they do ‘boundary work’.

1.4 The ascendance of ‘alternative’ medicine

To provide a brief context for this thesis it is useful to reflect on recent patterns in the usage of alternative medicine. Although studies into alternative medicine have been relatively few in number (Eskinazi, 1998), those that have been completed demonstrate the prominence of alternative modalities in health care. A recent nation-wide study in the US found that usage of alternative practitioners had increased 7.9 percent from 1990 to

² Neuroblastoma is a disease in which cancer (malignant) cells are found in certain nerve cells in the body. Neuroblastomas occur when normal foetal neuroblasts (immature nerve cells in the foetus) fail to mature into nerve cells or adrenal medulla cells (cells found in the centre of the adrenal gland). Instead, neuroblasts continue to grow and divide.

1997, from 34 to 42.1 percent (Eisenberg et al, 1998). Further, the study found that there had been a 47 percent increase in total visits between 1990-1999, with out-of-pocket expenses to the American public reaching US\$107 billion annually. Similarly, a 1996 study found that 20-35 percent of the British population use alternative therapies (Fulder, 1996). A 1993 study showed that 61 percent of Australians use some kind of alternative medicine at least once a year (Complementary Health Care Council – Australia), spending almost A\$1 billion in 1999: A\$620 million on ‘products’ and A\$309 million on practitioners. Zollman et al (1999), using data from surveys during 1987-1996, established what is probably a conservative indication of the prevalence of alternative medicine internationally:

Table 1.1: Use of complementary medicine worldwide (Zollman et al, 1999:837)

Country	% Of sample using complementary medicine	
	Seeing a practitioner	Using any treatment
United Kingdom	10.5% *	33%*
Australia	20%*	46%*
United States	11%*	34%*
Belgium	24%*	66-75%**
France	No data	49%**
Netherlands	6-7%*	18%**
West Germany	5-12%*	20-30%**

* Past Year

** Ever

An ongoing problem highlighted in the above table is that Zollman et al provide no indication of whether these international studies maintained a consistent definition of alternative medicine. When examining any statistics surrounding alternative medicine one needs to be aware the author’s perception, and thus definition, of what practices should be considered ‘alternative’, has a huge influence on the results of their study. For example the inclusion of spiritual practices (which can be anything from praying for

³ The details of this debate are explored in Chapter 3.

healing to consulting a spiritual healer) as 'alternative' greatly increases the percentage of 'users of alternative medicine' (see Richardson et al, 2000). Moreover, a flat percentage provides little information regarding the usage of particular modalities. Although Table 1.1 states that 46 percent of Australians use or have used 'alternative medicine', it may be the case that 40 percent use or have used osteopathy and chiropractic, and the other five percent, acupuncture. The point is these statistics tell us little about which alternative modalities are most frequently used and tend to promote an image of the ascendance of all 'alternative' modalities, an image that may in fact be inaccurate.

Other than the study done by Eisenberg et al (1998) there has been little research into the changes in usage over the last few decades, leaving it up to guesswork as to how these figures compare to those of the 1970s or the 1980s. Despite this, it is clear from these figures that, although variable, alternative treatments are used frequently in Western industrialised countries.

Despite these international studies, there has been no significant research into the usage or prevalence of alternative therapies in New Zealand. It seemed vital to investigate general public attitudes before engaging in an in-depth analysis of issues surrounding alternative medicine in New Zealand. This is because public support of, and demand for, particular health services plays an important role in how boundary work is done. This was seen vividly in the state's reaction to public condemnation of the Holloways' experience.

During my studentship in the Christchurch School of Medicine's Summer Research Programme, I embarked on a pilot study of attitudes towards health science. Among the questions asked in a random phone survey of ninety-seven Christchurch residents,⁴ three concerned public use of, and attitudes towards, alternative medicine.

⁴ This research, titled "*At The Laboratory Window: Science and Society*" was funded by the Christchurch School of Medicine's Summer Studentship Programme. The aim of this research was to improve our understanding of public opinions and attitudes toward health science. I acted as a summer research fellow on this project run by Dr Keiko Tanaka, University of Canterbury, Sociology and Dr John Evans, University of Otago, Obstetrics and Gynaecology. Of the initial sample of 260, taken randomly from the Christchurch electoral role, 93 interviews were completed. For more detailed information see Appendix 1.

Table 1.2: Public attitudes towards ‘alternative’ medicine in Christchurch*

Survey Questions:	Respondents Agreeing	
	Number	%
Have you tried alternative treatments?	56	57.7
Doctors should incorporate alternative treatments into their practices?	79	81.4
Doctors should encourage patients to use alternative treatments?	84	86.6

*Alternative medicine was defined for respondents as: “any health related treatments, practices and ideas that are not offered by conventional medical institutions or not accepted by medical professionals who are trained in the modern medical sciences. Examples include, but are not limited to, herbal medicine, acupuncture, homeopathy and chiropractic.”

The results of our survey were consistent with the statistics from the US, Britain and Australia, demonstrating the high usage of, and support for, alternative modalities. Almost 58 percent of respondents said that they had received an alternative medical treatment, interestingly, 79 percent of females and 40 percent of males.⁵ In Britain, Fulder (1996) also found that women used alternative medicine more frequently than men, and further, they tended to use different types of treatments.⁶ In regards to access to, and supply of, alternative treatments, 81.4 percent of respondents in our study agreed that doctors should incorporate alternative treatments into their practices. Further more, 86.6 percent of respondents agreed that patients should be encouraged by their doctors to seek alternative treatments. However, despite the strong support for alternative practices, and concern over new scientific developments (e.g., GMO food, genetic engineering, immunisations, cloning), 71 percent thought that research based on modern science and technology is the only way to find a cure for major diseases. The centrality of conventional medicine in the search for ‘cures’ is combined with openness to alternative

⁵ They indicated that they had used an ‘alternative’ treatment/s at some time in their life.

⁶ Fulder (1996) found that women are more likely to use homeopathy and herbalism, with men favoring massage and osteopathy.

health practices. This survey suggests that support for alternative medicine is high in Christchurch, with a large proportion of respondents supporting the integration of alternative and conventional medicine. While larger and more in-depth studies into public attitudes are needed, this data indicates that the level of support for alternative medicine seen in the international studies may be replicated in contemporary New Zealand society.

1.5 Cancer and ‘alternative’ medicine

As I will discuss in the following chapters, this analysis is concerned with the use of alternative treatments by cancer patients, not patients suffering from other chronic conditions such as back pain, arthritis, allergies or depression. The significance of this is that we cannot assume that general studies into the usage of alternative treatments are relevant to cancer patients. Even today, most cancers have a high fatality rate, and as a result, the decisions that those diagnosed with cancer make, and the treatments that they are prepared to try, are influenced by this realisation. This is not to suggest that cancer patients use certain treatments as a result of desperation or hopelessness. To the contrary, Sollner et al (2000:73-80) found in their study of cancer patients in Austria (N = 205) that use of alternative therapies is not associated with distress or poor compliance with medical treatment.⁷ Rather, patients considered alternative treatments as supplementary to standard medical methods and one way of avoiding feelings of passivity. Using alternative cancer treatments is, according to Sollner et al (2000), a rational coping mechanism that cannot be reduced to a reaction to the traumatic experience of having cancer. However, it does need to be acknowledged that the nature of a particular disease, and its impact on the body, does have an influence over the types of treatments that a patient might pursue.

To provide an indication of the figures available on usage of alternative medicine by cancer patients, Richardson (1999:38) estimates that 50 percent of US cancer patients use alternative/complementary medicine, with most patients combining these with

⁷ Patients undergoing radiotherapy were surveyed on their interest and use of alternative medicine. The Hospital Anxiety and Depression Scale, and the Frieberg Questionnaire of Coping with Illness were used to gauge the respondents' psychological condition.

conventional cancer treatments. Bringing together 26 surveys from 13 countries, Ernst and Cassileth (1998) found that on average 31.4 percent of cancer patients use alternative/complementary therapies, ranging from 7 to 64 percent. In a study of Canadian children with cancer Fernandez et al (1998) found that 42 percent used alternative or complementary therapies, usually simultaneously with or following conventional therapies.⁸ Another Canadian study of cancer patients by Warrick et al (1999) found that 22.5 percent of patients with head and neck cancer (N = 200) had used alternative medicine as part of their cancer treatment. An Australian study by Begbie et al (1996) surveyed 319 cancer patients to assess the patterns of alternative medicine use, and to compare patients' experience of alternative with conventional medicine. Almost 22 percent of the 319 assessed indicated that they were using alternative therapies, with close to 49 percent of those feeling that they had been cured, or that their lives had been prolonged. Overall, 70 percent (of the original 22 percent) were satisfied or very satisfied with the alternative treatment, with only one person unsatisfied.

Burstein et al (1999) studied American women with newly diagnosed early-stage breast cancer (N = 480) and found that 28 percent of them began to use alternative medical therapies as an adjunct to conventional therapy. However, results between countries and types of cancer are variable. Boon et al (2000) in a study of Canadian women with breast cancer found that 67 percent of patients use alternative therapies, significantly more than in the study done by Burstein et al. Addressing the variability of usage according to cancer type, Morris et al (2000:407) investigated the hypothesis that use of alternative therapies differed between patients with breast cancer and those with other primary tumour sites (N = 617). Morris et al found that breast cancer patients were far more likely to be consistent users compared with other tumour sites, suggestive of variability between patients with different types of cancer. Despite the obvious gender connection - i.e. breast cancer patients are almost exclusively women who are in any case more likely to use alternative treatments (see Fulder, 1996) - in all likelihood the type of cancer, available

⁸ Parents were surveyed.

treatments, symptoms, rate of progression, and the experimental trial programmes available will all influence whether or not a patient will explore alternative therapies.

Although further research is needed, these international studies do illustrate that the use of alternative treatments by cancer patients is not uncommon, and certainly, the oncologists I interviewed in Christchurch confirmed this trend in the New Zealand context. They suggested that about 80 percent of cancer patients treated in Christchurch use some form of complementary or alternative treatment in conjunction with their conventional treatment. According to Dr Robinson (Associate Professor of Oncology, Christchurch Hospital), this ranges from herbs, vitamins and acupuncture to the more “exotic treatments” such as Rife Machines⁹ or treatment at the Hoxsey¹⁰ clinic. She stated that of the 80 percent using alternative treatments, most cancer patients used dietary regimes or vitamin supplements, whereas 10 to 20 percent would use what she considers the more “exotic” treatments such as frequency machines.

This highlights the huge range of ‘alternative’ treatments used by cancer patients. We need to be aware that there is multiplicity within alternative cancer treatments, with certain treatments putting greater or lesser demands on the patient, and varying degrees of interaction with conventional treatments. This multiplicity also means that the level of

⁹ Royal Raymond Rife, M.D., built what some claim to be the most powerful microscope ever to detect disease, and an equally powerful instrument that he claimed could correct any disease. In 1932, Rife gained public attention claiming that his resonator machine was able to kill viruses of all kinds when it bombarded them with a certain frequency. Followers of Rife’s work claim that his discovery was a threat to both the medical establishment and pharmaceutical industry, with the possibility that people would no longer need drugs to fight disease. As a result, supporters argue, the medical establishment launched a campaign to discredit his work. They claim his microscope was stolen, his equipment destroyed, his clinic burned in San Diego, and his manuscripts and works disappeared. The Rife machines we hear about today are supposedly based on his machine. (Mysteries Web Page, 1996).

¹⁰ Before his death in 1974, Naturopath Harry Hoxsey promoted an herbal treatment consisting of an externally used paste or powder and a tonic taken orally. Hoxsey claims that the formulae were developed in 1840 by his great grandfather and passed to him by his father while he was dying of cancer. Although the formula has remained secret, according to tests by the FDA the external preparations contain corrosive agents such as arsenic sulphide. The internal medicine is said to be adjusted on a case-by-case basis, containing potassium iodide and such things as red clover, liquorice, burdock root, stillingia root, berberis root, pokeroor, cascara, prickly ash bark, and buckthorn bark. Hoxsey’s treatment was offered at clinics in the United States from 1924 until repeated clashes with the FDA led him to close his main clinic in Dallas in the late 1950s. In 1963, Hoxsey’s former chief nurse Mildren Nelson began offering this treatment at a clinic in Tijuana, Mexico (Quackwatch Home Page, 2000).

contestation will be variable depending on the particular ‘alternative’ treatment used. It is not sufficient to homogenise all ‘alternative’ cancer treatments into either one or two categories – they are multifarious. We have frequency machines, diets, acupuncture, herbal remedies, vitamin infusions, healing touch therapy and spiritual healing to name just a few, each varying considerably between practitioners. Moreover, the patient that takes vitamins in the morning while pursuing chemotherapy is very different from another who spends six months in Mexico without receiving conventional treatments. Further, the latter are the minority, and the Holloways, without doubt, are a minority, with very few parents refusing conventional treatment for their children. Dr Robinson attempts to contain this multiplicity by asserting that there are only two categories of alternative practices - “complementary” (palliative and non-interactive with conventional treatments) and “exotic” (to a lesser or greater degree, physically, emotionally or financially damaging to the patient). This is, as we shall see, just the surface of the boundary work done within the medical profession. Throughout this thesis we will see many attempts to group treatments, to draw lines, and to homogenise practices that are, for some disparate and for others similar. We shall map this process as it occurs in the wake of the Liam Williams-Holloway controversy.

1.6 A Media Controversy

It is important to emphasise is that this thesis is focused on the events surrounding the media controversy over the treatment of child cancer sufferer Liam Williams-Holloway. This particular public debate raised a number of issues surrounding the legitimacy of alternative and conventional cancer treatments. Why look at a media controversy such as this? What is the sociological importance of a media debate over a child with cancer?

Thompson (1997:39) writes on the role of media controversies which he terms “media scandals”. To begin with, he defines a scandal as any event or circumstance that has the following characteristics:

- Their occurrence or existence involves the transgression of certain values, norms or moral codes.

- They are known or strongly believed to occur or exist by individuals other than those directly involved (i.e. non-participants).
- Some non-participants disapprove of the actions or events and may be offended by the transgression.
- The disclosure and condemnation of the actions or events may damage the reputation of the individuals responsible for them (although it does not necessarily do so).

Scandals, Thompson argues, are a mediated form of communication, with the media playing a major role in their emergence, their developmental logic, their prominence, the ways in which they are experienced by both the participant and others, and their consequences (1997:48). So what is the connection between the ‘scandal’ and mediated forms of communication? The various forms of media are themselves, as organisations, key players in social and political life. The media is both a single actor and a network of actors (multiplicity between different publications with specific target audiences and localities) competing against one another. Media organisations, like other profit-making organisations, have a vested interest in maintaining or increasing the sale of their products. Media organisations and commentators, like any other actor, position themselves in a political field; they have a particular agenda, and the disclosure of scandals and their commentary on them may reinforce their political aims and self-conceptions. This does not mean that the media are able to dictate how we think, but to a large degree they do influence what issues we think about (Hiebert et al, 2000). Mayer (1994:37) suggests that newspapers are especially influential in constructing public issues, as they are responsible for deciding, on a daily basis, whether X or Y qualifies as an important issue. Thus, he argues, the media actively constructs issues, or scandals, to which the public attend. Media reports do not merely mirror social life – they are artefacts that have been constructed, fashioned and transformed (Mayer, 1994:38).

The important sociological questions are: are these scandals significant and if so, what impact do they have on social life? This question is difficult to answer because each scandal involves individuals whose lives are shaped by their own peculiar motivations,

ambitions, opportunities and faults. Thus, any attempt to generalise about the consequences of a 'scandal' is likely to be problematic. Approaches to the influence of the media range from viewing it as a "magic bullet" that can penetrate people's minds to create specific responses (Hiebert et al, 2000:126), to the view of it having "no consequence" or a normative effect, merely reproducing the existing social order (Thompson, 1997:60). I would suggest that the actual influence of the media lies somewhere in the middle. The media scandal has the ability to reset social norms and traditional values, but it also has the ability to contest the legitimacy of particular actors, practices and knowledges. These events create fields of interaction and forms of visibility through which actions can have consequences that extend far beyond their immediate locales (Thompson, 1997:60). 'Scandals' are a means of representing practices and techniques, a means of both consolidating and contesting the legitimacy of particular social practices. They are one way in which boundary work is done, contributing to the construction of social categories, in this case, the construction of 'alternative' and 'conventional' medicine.

1.7 The Context of Western Medicine

An understanding of the history of medicine is essential to gain an understanding of the evolution of alternative and conventional medicine (Willis, 1994:56). What it vividly demonstrates is that the *process* of distinguishing conventional and alternative practices involves securing state validation, professional autonomy and self-regulation (Dew, 1998:18). The evolution of allopathic medicine illustrates that it is the implementation of policies, acts, regulations and laws that ensures the exclusion of certain practices from receiving the legitimisation accorded to the former. The following historical overview illustrates the *process* of becoming dominant, of becoming 'conventional'. Medicine is the site of struggles among various actors and the product of historical struggles over resources, rights to practise, state validation and occupational territories. It illustrates that the position of a profession has as much to do with its methods of organising experts, resources, rules and practices as it has to do with actual therapeutic practices.

The history of the development of health practices has typically been written as the history of conventional medicine. The story of 'other' health professions not in the hands of physicians, surgeons and apothecaries still awaits in-depth research (Porter, 1988). Certainly, the histories of nursing and midwifery have been documented, but not to the extent of allopathic medicine. In Europe, before the widespread emergence of the medical profession, a range of modalities were available including astrology, herbalism and healing (Larner, 1992). The pattern until the nineteenth century was for different modalities to wax and wane in popularity. However, in the mid-nineteenth century one of these modalities, allopathy, began to rise into a position of dominance (Willis, 1994:56).

The initial development of the medical profession in England in the nineteenth century came about through the merging of apothecaries, surgeons and physicians (Abbott, 1988:3). In 1815, the General Pharmaceutical Association initiated the Apothecaries Act, looking to the government to raise the standard of entry into the profession and to prohibit unqualified persons from practising. The Act was the outcome of an ongoing struggle to create defined occupational boundaries between the apothecaries, druggists and chemists, physicians and surgeons (Dew, 1998:20). This Act introduced the concept of a qualified or registered practitioner into English law, which gave the General Medical Council powers to control who could practice medicine (Waddington, 1973:108). The 1858 Act was an outright victory for the regular medical practitioners of the day. At this time, homoeopathy was very popular, and posed a serious challenge to orthodox medicine. Due to the support for, and prevalence of homeopathy, a clause was inserted into legislation that would ensure that homoeopaths could practice, maintaining homeopathy's place in regulated medical practice in Britain. Homeopaths are still licensed to practice under Britain's National Health Service. It is within this context that allopathic medicine developed in New Zealand as a key component of nineteenth century colonisation.

1.8 Medicine in New Zealand

The history of New Zealand medicine reveals multiple tensions and an ongoing struggle to secure occupational territory. During the early periods of colonisation, doctors and

chemists were the only formally recognised health professionals (Belgrave, 1985). In New Zealand in the 1870s, other professionals such as dentists, opticians, masseurs and public health officials became established. Homoeopaths remained within the medical profession, while herbalists, hydrotherapists and medical electricians developed outside (Belgrave, 1985:294). British qualifications predominated in nineteenth-century New Zealand medical practice, with the most common qualification in 1870 being a surgeon's license from the Royal College of Surgeons, London.

In nineteenth century New Zealand, the demand for medical practitioners rose with the establishment of hospitals, an institution brought in by the colonists. The 1878 Medical Act in Britain provided the ground rules for medical licensing in New Zealand. Early efforts by the medical profession to provide a state-sanctioned monopoly for doctors with approved qualifications were blocked, particularly by those practising alternative medicine (Dew 1998:23). After the 1880s there developed a tendency for doctors to be seen as part of the scientific revolution, with new technology and scientific discovery in other fields underlining the doctor's new found respect (Belgrave, 1985:149). The Liberal Government came to the assistance of doctors through legislation, with the passing of the Tohunga Suppression Act in 1907 and the Quackery Prevention Act in 1908. Further, in 1887 the New Zealand Medical Association was established, whose aim was to "pursue a concentrated and co-ordinated campaign aimed at giving doctors control over medical licensing and professional discipline" (Belgrave, 1985:38). In 1896, the NZMA decided to join the BMA and amalgamate their medical journal with the Australasian Medical Gazette published in Sydney. This early professional organisation did not obtain its goal of controlling medical licensing until the establishment of a medical board in 1914.

Efforts to secure the autonomy of conventional medicine in New Zealand were hampered by support for unconventional treatments from the affluent classes, and concerns that, if passed, the desired legislation would dictate to practitioners the type of treatment they could adopt. British legislation protected homoeopathy, and early efforts to introduce a Medical Practitioners Bill failed because of opposition from proponents of homoeopathy (Dew, 1998:24). However, in 1867 the passing of the Medical Practitioners Act clearly

undermined the strength of homoeopathy in New Zealand, leaving it out of the hospital system. Despite opposition from many wealthy and powerful supporters of homoeopathy, the bill was passed with the Medical Board consisting of orthodox medical practitioners only. Established in 1874, Otago medical school emerged as a very conservative medical school, precipitating a climate of conformity in New Zealand medicine (Dew, 1998:26). This 'inflexibility' is evidenced in the contemporary climate. While medical schools in America and Britain provide education in regard to alternative modalities¹¹ (Wetzel et al, 1998), the two New Zealand medical schools continue to provide training exclusively in conventional medicine.

By 1940, the New Zealand medical profession was homogeneous, organised and a powerful pressure group, with medical knowledge and education having become much more standardised. The period between 1938 and 1941 was crucial for the medical community in New Zealand as it struggled to secure the legislative and institutional framework of the current New Zealand health system (Fougere, 1984:116). By the 1930s, the medical practitioners dominated the provision of health care and the making of health policy in New Zealand. In 1935, the first Labour government sought to institute a state-funded health system that provided access to free health care on the basis of need and the medical community organised to oppose the legislation. They viewed state funding of health care as a threat to their direct, fee-for-service-based relationships with their clients and as a way of ensuring state actors' long-term stake in the oversight and control of their work (Fougere, 1984:116). The medical community was well aware of the threat this legislation posed to their professional autonomy. The result was a three-year struggle that ended in partial compromise. All citizens would have access to public hospital care financed from taxation, while tax-financed subsidies would be made available to those choosing to use private hospitals. This legislation consolidated the autonomy and professional monopoly that the medical community had already established. General

¹¹ Wetzel and Eisenberg received replies from 117 (94%) of the 125 US medical schools. Of schools that replied, 75 (64%) reported offering elective courses in complementary or alternative medicine or including these topics in required courses. Of the 123 courses reported, 84 (68%) were stand-alone electives, 38 (31%) were part of required courses, and one (1%) was part of an elective. Common topics included chiropractic, acupuncture, homeopathy, herbal therapies, and mind-body techniques (Wetzel & Eisenberg, 1998).

practitioners continued to enjoy the right to practise where they chose, as they chose, for the prices they chose, while being able to draw on extensive state subsidy of their fees and the resources that they used for practicing medicine (Fougere, 1984:117).

Such market advantages were not enjoyed by other practitioners such as osteopaths, chiropractors and nurses, with general practitioners acting as gatekeepers to state subsidies. Despite their initial opposition, general practitioners gained the most from an apparently open-ended commitment to “protect them from competitors and to underpin financially whatever form of service they thought appropriate to provide” (Fougere 1984:117). This clinical freedom has left specialists free to make decisions about how resources are allocated among patients, with a distinct absence of effective information systems or even of effective forms of peer review. Similarly, specialists enjoy a virtual monopoly in defining new forms of medical need and the new services and technologies required to meet these (Fougere 1984:117).

As I have illustrated, over the last thirty years alternative practices have become increasingly prominent in Western industrialised countries. In the last decade especially there has been an exponential increase in demand for, utilisation of and availability of the services of alternative practitioners (Willis, 1994:57). Naturopathy, herbal medicine and aromatherapy in particular are increasingly viewed as a ‘normal’ part of sustaining wellness. The commodification of herbal supplements has also dramatically increased the exposure of herbal medicine in Western industrialised society. As Peter Kearns, of the Christchurch School of Natural Medicine, put it, “The way things are going we have almost become trendy” (Interview, 4/9/00).

Although the history of medicine illustrates the dominance of allopathic medicine, from recent trends one can see that relationships between modalities are not concrete; they are sustained by those regulations, legislation and funding allocations that allopathic medicine worked hard to secure. In the present climate this medical dominance is being challenged. Further, the implications of these regulatory strategies are being considered, which is resulting in a reconsideration of the boundaries between alternative and conventional medicine.

1.9 Overview

This thesis consists of six chapters. Chapter two discusses the various issues related to the design of this research project. It involves a discussion of the methods used to collect data that contributed to this analysis of ‘boundary construction’. I reflect on how these research strategies have shaped the analysis, followed by consideration as to how my own position impacted on the research process.

Chapter three develops a conceptual framework for analysing this process of ‘boundary work’; a framework which is used in the following chapters to make sense of the discursive practices of both media commentators and selected health practitioners. This involves a critique of existing conceptualisations of alternative and conventional medicine, disrupting oppositional representations of these complex and interconnected social phenomena. This critique draws on elements of social constructionism and actor-network theory, outlining the fundamental assumptions underlying my conceptual framework.

Chapter four is an analysis of the media debate over the treatment of child cancer patient Liam Williams-Holloway, focused on exploring the progression of this controversy over time, both within and between selected publications. This chapter analyses the discursive practices of the media while attempting to ‘make sense’ of the actions of the parents, the authorities, and the public. This is essentially a systematic analysis of the multiple, intertwined, and at times polarised discursive struggles that contribute to the construction, consolidation and contestation of boundaries between alternative and conventional medicine. By representing different health practices, the media both constructs and transmits discourse, providing multiple positions, influenced by a multiplicity of actors and their discursive practices. These representations contribute to the generation of categories such as ‘alternative’ and ‘conventional’. This makes the media an important source of contestation and articulation, an indirect, but vivid representation of conflicts between various actors in health care provision. Thus, a systematic analysis of media reporting provides a view of the interconnectedness of conflicting knowledges and

demonstrates the ongoing process of knowledge construction and legitimization of various practices and techniques.

Chapter five focuses on this same process of representing ‘alternative’ and ‘conventional’ health practices but in the context of interviews with health practitioners. The objective here is to capture the rhetorics developed by these practitioners, illustrating the process by which occupational territories are maintained and contested. The principle focus is on how the ‘talk’ of these practitioners deconstructs oppositional representations of ‘alternative’ and ‘conventional’ medicine, illustrating the interconnected and contradictory nature of the discursive practices of these practitioners, and the rhetorical strategies that are used to generate ‘difference’ in the light of this. This is an analysis of how those across a spectrum of health practices/professions construct themselves and ‘others’.

Chapter six concludes this thesis, focusing on the implications of my analysis in terms of the strategies the media and health practitioners use to construct ‘alternative’ and ‘conventional’ medicine. It focuses on illustrating how ‘alternative’ and ‘conventional’ in medicine are continually (re)shaped by media representations and the discursive practices of health practitioners. Lastly, I discuss the possibilities for future research and the implications of this study for the future of health provision in New Zealand.

Chapter Two:

Examining the research process

2.1 The how and the why

Doing social research is about making choices; including certain issues and excluding others. It is about listening to specific voices, looking at specific versions of particular events, and making sense of how these contribute to the social processes under scrutiny; in this case, the construction of boundaries between alternative and conventional medicine. This chapter focuses on exactly how I constructed this research project and the choices I made that shaped this analysis. It clarifies why certain decisions were made, why particular methods were used as opposed to others, and how these research strategies shaped the outcome of my enquiry. By doing so, I hope to ensure that this research will be useful to others who were not involved in the research process (Gilbert, 1996:338). The researcher needs to be reflexive about the journey, to give consideration to why this project took this particular shape and not another.

The objective of this research was to examine the construction of boundaries between alternative and conventional medicine. I set out to gather data that would indicate how these social categories are constantly generated and sustained. The idea of looking at boundary construction came out of my interest in the Liam Williams-Holloway case when the media brought it to public attention last February. This controversy sparked my interest in ways of representing health practices and the implications of certain representations. This focused my interest on the role of the media as a medium through which positions are constructed and contested. I decided to investigate media reporting on what we consider alternative or conventional treatment. What strategies do media

commentators use to construct certain representations and where do they place the boundary between alternative and conventional medicine? Moreover, how do certain health practitioners represent their practices and that of other practitioners? What strategies do they use to construct and contest boundaries between alternative and conventional medicine? But before moving into a discussion regarding the way I set about answering these questions, it is important to discuss how this study emerged; how I became interested in the dynamics between ‘alternative’ and ‘conventional’ medicine.

2.2 Survey

The idea of doing a study into ‘alternative’ and ‘conventional’ medicine was initially inspired by the results of a survey I completed in the summer of 1999/2000 under the Christchurch School of Medicine Summer Studentship Programme before this thesis began. The research project “*At The Laboratory Window: Science and Society*”,¹² included a few questions in the survey that assessed the level of public support for alternative medicine in Christchurch. The results of this survey, already presented in Chapter 1, while privileging the ‘curative’ powers of conventional medicine, demonstrated significant public support for alternative medicine, and for an increase in its use within the medical community. The results of this survey, in the wake of the Liam Williams-Holloway case, prompted me to question whether the boundaries between alternative and conventional medicine were shifting as cases like this arose. I began to consider how media coverage and the claims of particular actors influences public perception? I became interested in what strategies the medical community use to contest this support, and what strategies alternative practitioners use to reproduce this support.

While working on the summer studentship I was able to collate numerous international studies on the usage of alternative modalities but I was not able to find any data on alternative medicine in New Zealand. This seemed a major gap in existing knowledge and problematic for this research. The dynamics between alternative and conventional medicine, and the boundary work under scrutiny, are in part products of public support

for alternative modalities. Similarly, the boundary work done by particular actors is aimed at persuading particular groups within the public, using trusted mechanisms such as science and nature to encourage public support for particular practices. If anything, this survey shows a real need for more research into the role of alternative modalities and the significance of these trends for the development of health services.

2.3 Media Analysis

In order to answer questions arising out of the survey I decided to do an analysis of reporting of the Liam Williams-Holloway case by specific media outlets. This would allow me to analyse how certain publications developed a position in relation to health care practices. I was also interested in the strategies they used to justify this position. The next stage was to decide in what way I was going to analyse these media reports. Textual analyses are broad ranging, from content analysis (focusing on the textual patterns within the reports such as the use of 'strike' instead of 'take evasive action' in the case of reporting violent encounters) to critical discourse analysis which focuses more on the possible effect of the text and the conditions of its existence. The latter approach, which is more qualitative than the former, looks more closely at texts as sites for the articulation of various (sometimes contradictory) discourses.

Since my aim was to analyse how these media reports produced and communicated discourses surrounding alternative and conventional practices, a qualitative approach suited my research question. Thus I did a content/thematic analysis of media representations in reporting of the Liam Williams-Holloway case. Despite a focus on the discursive (rather than the usage of particular phrases, terms etc.), any textual analysis invariably involves examining content - it involves analysing the prevalence of particular statements or particular words - and thus, content analysis also formed an important part of this analysis. I was interested both in basic language use, and in the discourses that underlay the use of particular words or phrases. What were the links between reports over time and between publications, and what effects do these have on the perception of

¹² Dr Keiko Tanaka and Alex Broom, University of Canterbury, Sociology and Dr John Evans, University of Otago, Obstetrics and Gynaecology. See Appendix 1 for a detailed description of the methods used,

particular practices? What is the purpose of these representations and how does this work for or against particular actors? What strategies are used within the media to construct legitimacy for particular practices? How does this change over time and why? I aimed at trying to put together the pieces of how boundary work is done over time and by these particular actors. This involved developing an explanation as to how the media actively participates in reproducing discourses that both consolidate and contest the position of alternative and conventional medicine.

In order to answer these questions, I decided to isolate significant stages in the debate to analyse how particular publications were representing particular practices and the strategies they used to construct an argument over Liam's treatment (see Appendix 4). It was not so important to isolate significant stages, but rather to establish events to which publications responded. This would enable me to compare the discursive practices of particular newspapers. The next step was to pick out particular publications that I could target, as time constraints meant that I could not cover all media accounts of the debate. I selected three newspapers, *The Southland Times*, the *Sunday Star Times* and *The Press* (Christchurch). It is important to emphasise that these are merely three of the numerous newspapers which reported this case and are by no means viewed here as representative of all reporting on the case. As Becker (1998:67) states in relation to sample size, although it would be nice to think that these few examples can be generalised to represent all the media actors, this would be inaccurate and potentially misleading. An analysis of other publications would in all likelihood result in different findings, not necessarily contradicting those here, but certainly different. This is not an analysis of boundary construction within the New Zealand media, it is an analysis of boundary work within these particular publications, and should be treated as such. However, this does not mean that the practices of these publications identified here are not important, rather it means that they should be viewed as a select few, among many.

I had particular reasons for selecting these three publications: *The Southland Times*¹³ is the major publication for the region in which the Holloways live, and thus, gave considerable coverage and had a vested interest in the case. The *Sunday Star Times*,¹⁴ however, has a reputation for relatively critical commentaries that are, as a general rule, supportive of institutionalised practices - in this case, biomedicine. As a weekly national publication, the *Sunday Star Times* tends to contain more in-depth commentaries that extend beyond 'the facts of the case' to the wider social issues. Another daily publication, *The Press*¹⁵ is aligned more closely to the *Sunday Star Times* in its support for conventional medicine. *The Press* (Canterbury region) and *The Southland Times* (Southland region) are South Island, regional publications and the *Sunday Star Times* is a national publication. In order to systematically analyse these three publications, I examined all their reports relating to the Liam Williams-Holloway case over a one-year period between February 1999 and February 2000. This means examining each publication's reporting over this period in isolation and then comparing the responses to those of the other publications. In this way, I was able to establish multiple representations of particular events, analysing the strategies used to validate these representations as they differed between the three newspapers. As well as these newspapers, I targeted specific articles in a number of magazines including *New Idea*, *North and South*, the *Listener* and *Healthy Options*, all of which are analysed in terms of their respective positions in relation to Liam's treatment.

¹³ *The Southland Times* has played a major role in the life and times of the Southland province since its first edition was published in 1862. It has been the principal provider of information and is one of the region's largest employers. *The Southland Times* has the highest circulation and readership of any newspaper in the region with an average weekly readership of 91,000, an into-home delivery of nearly 80% of its circulation, and a weekly reach of 75% of all Southlanders aged 15-plus. *The Southland Times* also publishes a daily Central Otago edition for distribution to Queenstown, Wanaka, Cromwell, Alexandra and surrounding areas. (INL Publications Homepage, 2000)

¹⁴ The *Sunday Star-Times* is New Zealand's only national broadsheet newspaper and it has the largest readership of any other newspaper at 593,000. Its six sections: News, Sport, Focus, Life, Business, Review, are targeted at the middle to upper socioeconomic levels. The *Sunday Star-Times* is based in Auckland with news bureaus in Wellington and Christchurch. (INL Publications Homepage, 2000)

¹⁵ *The Press* (Christchurch) daily newspaper has the biggest circulation of any newspaper in the South Island of New Zealand. *The Press* has a circulation of 92,936 with approximately 120,000 on Saturdays. More than half the South Island's population aged 15 years plus read *The Press* during a typical week. Readership: 370,000 weekly. Percentage Readership: 52%. The paper is distributed throughout Canterbury, Nelson, Marlborough, Central Otago and the West Coast. (INL Publications Home Page, 2000).

The aim of this process was to establish patterns that would demonstrate the role of the media in constructing ‘difference’ between alternative and conventional medicine. To achieve this I mapped out how each publication reacted to particular events and the discursive strategies that were used at these times. Moreover, I compared the strategies by different publications and the various representations of ‘alternative’ and ‘conventional’ medicine that were used to make sense of the Liam Williams-Holloway case. I isolated particular discursive strategies used by the publications, such as the use of ‘science’, ‘nature’, ‘holism’, ‘evidence’, ‘anecdote’ and ‘ethics’ to construct boundaries between ‘alternative’ and ‘conventional’ medicine. These publications provide a number of examples about how ‘boundary work’ can be done. They provide a glimpse into the processes by which ‘alternative’ and ‘conventional’ medicine are constructed as oppositional categories.

It is worth considering the interpretative, in-depth nature of this analysis. It was, as is any qualitative study, highly reliant on my own interpretation of the media reports. The bells that rang in my head when certain words were used, or certain phrases were repeated, were an important tool for making sense of what effect these reports may have had. As a result of this qualitative approach, I did not pick up on everything; sometimes I might have picked up on the wrong things, gone with patterns that I saw as significant but somebody else would not. As Becker suggests (1998:77), it is impossible to avoid interpretation in this kind of in-depth analysis. However, the advantage of flexible, descriptive, qualitative analysis is that one is not as likely to get stuck in conventional ways of thinking. We can produce observations that require us to create new ideas and categories that might not emerge in more structured analyses. In an analysis such as this, it is possible to be flexible in adjusting one’s approach as the data contradicts one’s initial assumptions or theories on how this process of boundary work is done. By giving attention to those cases that do not fit, to those strategies that do not at first make sense, to those incongruities so often bypassed by quantitative methods, we see the complexity of social processes, the contradictions and hiccups in the boundary work done by the media and practitioners.

2.4 Interviews with health practitioners

The second strand of the research was to interview selected health practitioners. It is important to clarify at this stage the connection between the media analysis and the interviews. The reason I decided to do the interviews was because I wanted to find out whether medical practitioners used the rhetorical positions presented in the media. The media is in effect a strategic pastiche of the boundary work done by other actors. I wanted to analyse the similarities and differences between the boundary work done by media commentators and by these health practitioners – alternative and conventional. Why do these differences exist – what is their effect? Are the same discursive strategies used?

I interviewed these practitioners because I wanted to hear one-on-one how doctors and alternative practitioners talk about their practices and those of other health practitioners. How do they see themselves and others practising health care? These basic questions are fundamental to gaining an understanding of how these particular actors do boundary work. I wanted to get them to talk about alternative or conventional medicine, consciously and unconsciously. I wanted to listen to the resources they use to persuade me of their legitimacy - what strategies do they use to promote their practices. Further still, how do they contest the position of other practitioners, what do they see as a legitimate treatment and how do they justify this.¹⁶ I wanted to find out how health practitioners do boundary work because these are the people involved with patients, involved in policy making, involved in an ongoing struggle to maintain, or in some cases, change their position on access to money or forms of regulation. These are some of the actors that contribute to discourses surrounding alternative and conventional medicine; they are involved in an ongoing way in generating these categories.

Finding doctors to interview was the most straightforward part of this research. I have two medical doctors in my immediate family who acted as gatekeepers for the three initial interviews with junior medical practitioners. These first three interviews with

¹⁶ The specific questions asked in each interview are included in Appendices 2 & 3.

house surgeons provided a platform for beginning the interview stage of this research. They provided a starting point for my analysis that explored which issues were relevant before pursuing further interviews. These particular house surgeons were selected because they had all been involved in the treatment of cancer patients, and thus had a better knowledge of and vested interest in the Liam Williams-Holloway case, a knowledge that I thought would be useful. In retrospect, this was not necessarily an advantage, as they tended to have very strong opinions of the case. However, any interview has a context and this is no different – the solution was to treat the interviews as operating in the wake of a controversy and within a social struggle, which as far as possible I have done. As junior practitioners, the three house surgeons did not want to be identified, and therefore have been allocated pseudonyms.

The next step was to interview oncology consultants to establish the views of some experienced clinicians on alternative and conventional medicine. This would provide information regarding the education of junior doctors, protocol regarding patients using alternative medicine, methods of diagnosis, claims to validity and so on. Through two contacts at the Christchurch School of Medicine, I organised interviews with two oncologists, Associate Professor Bridget Robinson (Oncology, Christchurch Hospital), and Dr Peter Sykes (Gynaecological Oncology, Christchurch Women's Hospital). These interviews allowed more detail on the policies, regulations, and practices within the oncology department. It allowed me to see how those who are considered by the state to be 'cancer experts' do boundary work. How are their rhetorical strategies different from those of the more junior doctors? How do they, as representatives of Canterbury Health, view alternative medicine? Once again, I do not claim that these two individuals are representative of all oncology consultants, nor that the house surgeons represent all their peers. They merely provide an indication of some of the strategies used within the medical profession to contest the positions of alternative modalities, to consolidate the legitimacy of biomedicine.

After completing five interviews with hospital-based doctors and five with alternative practitioners (*vide infra*), I interviewed a doctor who was not hospital-based. I decided to

interview a general practitioner who had an interest in alternative medicine. The aim of this interview was to examine the boundary work done by an actor who blurred the boundaries. Through my personal connections, I organised an interview with a general practitioner who had an interest in mind/body medicine. As it turned out, this particular practitioner was not as positive about alternative treatments as I had initially expected and his rhetoric was very similar to that of other medical practitioners. It would be interesting to do a second study focusing on medical practitioners who are also practicing alternative medicine, to analyse the way they do boundary work and the differences and similarities of their rhetorical strategies to those adopted by the doctors I interviewed for this study.

A crucial part of this thesis was the interviews with alternative practitioners to analyse how they did boundary work. As with the medical practitioners, I wanted to hear them talk about their profession, to hear them try to persuade me of the validity of their claims, to examine the rhetorical strategies they use that contribute to the construction or contestation of boundaries. How do they position themselves in relation to the medical profession, in relation to other alternative modalities, in relation to their fellow practitioners? What strategies do they use to critique conventional medicine, to critique the biomedical model? How is their talk contradictory; do they use facets associated with conventional medicine to legitimate their practices? All these questions were aimed at examining how 'boundary work' is done, gaining an understanding of the complexity of this process, and the contradictory nature of particular practices.

Finding alternative therapists to interview was more difficult because I had fewer contacts to rely on. I contacted a healing touch therapist that I knew (who was subsequently interviewed) who directed me to two other alternative therapists,¹⁷ a naturopath and a cranio-sacral therapist. These therapists, much like the junior house surgeons, had treated cancer patients, and therefore had a strong interest in the Liam Williams-Holloway case. These interviews were extremely useful as they allowed me to

¹⁷ They did not necessarily class themselves as 'alternative'. None felt comfortable to either disregard or attach themselves to this category.

begin to grasp the basis of a number of different 'alternative' paradigms. As a person who had never, up until this year, received an 'alternative' therapy, this was invaluable for beginning my education regarding 'alternative' forms of healing. As a result, a large part of these initial interviews was spent explaining the fundamentals of their professions and the paradigm of illness they operate within. I was also interested in how they differentiated between alternative and conventional medicine, how they assessed the effectiveness of particular treatments, and how they saw the role of the practitioner in the healing process. My questions were focused on examining how alternative practitioners constructed 'difference' and how they contested 'difference' – two essential processes in boundary work. These three interviewees also asked for their identities to be concealed.

Just as it was important to interview senior members of the medical community, it was also crucial that I interview their counterparts in 'alternative' medicine. Therefore I contacted the Christchurch School of Natural Medicine, who obliged with a combined interview with their co-directors, Colleen Anstey and Peter Kearns. This last interview was open-ended and very few direct questions were needed. By letting these practitioners direct the interview, talking openly about the dynamic relationship between alternative and conventional medicine, I was able to confirm, and at times rethink, the information provided by the previous interviewees. A flexible interview may leave some questions unanswered and expand too far on things we do know, but it is very useful to confirm patterns already identified.

Once again, it would be nice to think these few examples are generalisable to all those operating within alternative medicine, but I am sure this is not the case. My interest was not in generalising from these interviews, but gaining an understanding of how some differently positioned practitioners talk about their own practices and those of others. In fact, as Becker (1998:87) states, generalising from individual cases can be a problem, as you tend to miss the complexity of the particular cases that you select. The price of attempting to generalise is that we do not see and investigate those aspects of our case that do fit our image of a particular category. These practitioners do not fit perfectly into any particular category, and although, by selecting particular comments, I could create

the impression that they did, this would not reflect their actual practices. It is more valid to give proper attention to that which does not fit, to those things that have been bypassed because they do not fit with traditional representations. As Becker (1998:124) argues, let the case define the category, not the category define the case. In this way, we *can* generalise that the complexity found here, the pieces that do not fit with traditional categories are worthy of further investigation in other cases. At least in this way we do not generate the conventional answers to questions, but rather produce more questions (Becker, 1998:125).

2.5 Positioning the researcher

The position of the researcher invariably has a major impact on any research project, its methodology and theoretical foundations, and, as a result, the eventual outcomes of the study. According to Fielding (1996:139), a study is only as useful if the researcher is reflexive regarding his/her influence. The position of the researcher invariably affects his or her findings. Due to my medically orientated upbringing, I understood the medical jargon and, in the case of the first three interviews with the junior doctors, I had contacts with others in the working environment of the interviewees. As a result I felt relaxed in certain interviews because of these contacts, and was able to ask potentially awkward questions and re-ask them if needed. Moreover, after each interview I changed the way I asked questions, became more strategic and comfortable with my own ideas, which had a significant influence on the interview data. There are limits to the efforts that can be made to conduct the interview the same way every time (Fielding, 1998:145). Questions may not work, and the interviewer invariably brings information that he has learnt from previous interviews into the next, changing the structure of the interview and the nature of informal responses.

The reality of research is that a position cannot be deliberately occupied; the researcher enters the field with a particular agenda, a particular statement to make about the subject being studied. This cannot be avoided. In fact, it can contribute to the worth of the study if this position is acknowledged, thus becoming part of the understanding of how boundaries are constructed. This thesis is as much about analysing the construction of

boundaries as it is about constructing boundaries. This research in itself contributes in some way to the very processes being studied. By presenting my analysis of boundary work, by developing my version of events, I involve myself in boundary construction. By disrupting representations of alternative medicine or conventional medicine, I offer a new representation, and just as I argue that the representations considered here produce the things of which they speak, so does the analysis offered in this thesis. Over the period of this research, as should be evident in this thesis, my own position of alternative medicine has changed. Beginning with an idealised view of alternative modalities, and an overly critical view of conventional medicine, I have now acquired what I consider as a healthy cynicism towards both. Hence, this research is as much the result of my own voyage of discovery, as it is about my attempt to analyse the changing relationship of alternative and conventional medicine.

Chapter Three

Understanding boundary work

2000 BC - Here, eat this root.
 1000 AD - That root is heathen. Here, say this prayer.
 1850 AD - That prayer is superstition. Here, drink this potion.
 1940 AD - That potion is snake oil. Here, swallow this pill.
 1985 AD - That pill is ineffective. Here, take this antibiotic.
 2000 AD - That antibiotic is artificial. Here, eat this root.

- Anon. (cited in Brundtland, 2000)

3.1 Conceptualising the process of boundary construction

The Liam Williams-Holloway media debate highlights an ongoing but often covert process. This is the process of articulating positions, regulating territory, defining, consolidating and contesting occupational boundaries; it is the process of 'boundary work'. Debates about 'conventional' and 'alternative' treatments, such as that surrounding the treatment of Liam Williams-Holloway, provide an opportunity to study the articulation and contestation of occupational boundaries and the construction of discourses surrounding 'legitimacy' in health care. This case in particular has forced many actors to reconfirm their position within the health care network through discursive and regulatory means. The objective of this chapter is to develop a conceptual framework for analysing this process of 'boundary work' that will be used within the following chapters to make sense of the discursive practices of the media and the health practitioners I interviewed.

Drawing on elements of social constructionism and actor-network theory, in this chapter I discuss the fundamental theoretical assumptions of my approach to the construction of boundaries between 'alternative' and 'conventional' medicine. The focus here is on

examining these theoretical approaches in relation to the reproduction of models of illness, the representation of practices, and the relationship of these to the process of boundary construction. Following this I examine previous conceptualisations of alternative and conventional medicine, with a focus on the modernity versus postmodernity debate. This involves problematising oppositional representations of alternative and conventional medicine by developing a conceptualisation of the contemporary climate as more reflective of late modernism, and alternative and conventional medicine as reflecting elements of both modern and postmodern paradigms.

3.2 ‘Alternative’ and ‘conventional’ medicine as social constructs

That which seems the height of absurdity in one generation often becomes the height of wisdom in the next.

John Stuart Mill (*On Liberty*, 1859)

The primary aim of this thesis is to illustrate that ‘alternative’ and ‘conventional’ medicine are a product of both historical and ongoing interaction between various actors (e.g. doctors, patients, companies, hospitals, technologies, diseases, scientists, the public and so on) and to illustrate that these social categories are variable over time and space. Medical knowledges, be it ‘alternative’ or ‘conventional’, are regarded here as constructions that are socially and historical specific and are constantly renegotiated (Nettleton, 1995:25). ‘Alternative’ and ‘conventional’ medicine are the outcome of a negotiation and contestation between different organisations and knowledges in society. This negotiation and contestation is what I call ‘boundary work’; the process by which alternative and conventional knowledges are constructed, consolidated and contested.

The Liam Williams-Holloway case is one example that can be used to demonstrate this ongoing process of constructing boundaries. Using a case such as this, one can identify the very processes and strategies that are involved in the construction of ‘alternative’ and ‘conventional’ medicine. The significance of these strategies lies in the fact that the ‘differences’ they generate are often taken for granted as ‘natural’ distinctions between modalities (Nettleton, 1995:26). It is the work put into generating distinctiveness by actors such as those examined in this thesis, that normalise or naturalise ‘difference’. It is

in this way that 'alternative' and 'conventional' medicine as social categories are generated.

An important factor here is the tendency for medical knowledge, both 'alternative' and 'conventional', to be seen as inevitable, as transcending social life. This tendency is in part a result of the boundary work done by particular actors, such as the media and health practitioners, to construct and reproduce 'inherent' qualities or differences. However, as I will illustrate in the following chapters, these social categories are not inevitable; *both* alternative and conventional medicine are products of social events. Inevitability is something that is achieved by normalising a particular form and function in social life (Hacking, 1999:6). Inevitability is the result of work put in by particular actors such as the media, health practitioners, politicians, health organisations and health publications to validate a particular profession or paradigm of care. It is a result of work put into reinforcing particular qualities, techniques or ideas.

Dew (1998) develops a social constructionist conceptualisation of medical knowledge in relation to 'medical heresy'¹⁸ in New Zealand. According to Dew, medical knowledge does not represent an incremental progression towards more refined and better knowledge, but rather a series of relative constructions that are products of social and historical context. Dew treats what is seen as 'true' or 'fact' in science, in the same way as what comes to be seen as 'false'. He claims that something is not successful because it is true, but rather, it is regarded as true because it has been persuasive (Dew, 1998:4). Something is recognised as fact when groups (e.g. practitioners, scientists, politicians, journalists, academics, public groups) interact with one another and are successful in convincing each other of their claims about 'reality' (White, 1991:81). Drawing from these ideas, boundary work may be seen as the process by which certain actors, such as alternative and conventional practitioners, use mechanisms such as 'science', 'holism', 'nature', 'ethics', 'evidence' and so on, in an attempt to persuade others to accept their particular paradigm of illness.

¹⁸ The use of 'alternative' practices by medical practitioners.

It is important to clarify here that a social constructionist approach does not deny the legitimacy of medical knowledge/s. In looking at the construction of medicine I am not denying the existence of an external reality. I am not suggesting that all of life is socially constructed and such things as cancer, DNA and viruses do not exist outside this construction. Rather I am suggesting, as Lock does (1988:7), that the moment efforts are made to explain, order, and manipulate that reality, a process of contextualisation takes place in which the dynamic relationship of biology with cultural values and social order has to be considered. In this way one can understand how social phenomena such as alternative and conventional medicine are produced by social processes rather than transcending social life. They are embedded in beliefs and everyday practices. In this way we are able to understand the importance of the discursive practices of actors such as the media and health practitioners in determining the position and characteristics of 'alternative' and 'conventional' modalities.

In order to conceptualise medicine as socially constructed it is important to identify the ongoing social processes that produce it. How is medical knowledge legitimated and what actors are involved in this social process? Moreover, how is the form of 'conventional' medicine reproduced in contemporary New Zealand society? One can see this process of constructing and reproducing the primacy of the biomedical model within conventional medicine in medical training, and in patient/doctor and doctor/doctor interaction. Atkinson (1988:200) argues that by examining these facets of the medical culture one can reveal how biomedical knowledge is "socially accomplished". Firstly, to understand the processes involved in the reproduction of medical knowledge, it is important to clarify what it meant by the 'biomedical model'.

The biomedical model entails a functionalist approach to illness, with an emphasis on the body as an organism that can be treated symptomatically (see Grumbach, 1995; Eskinazi, 1998; Samson, 1999). The biomedical model constructs illness as a breakdown or dysfunction of a particular organ/s that can no longer provide a necessary function for the body. 'Conventional' medicine (especially hospital-based) is largely mechanistic, with

doctors picturing the body as a machine made of many parts, with the respective individual parts treated separately (Saks, 1994; Samson, 1999). This mechanistic approach stresses the role of doctors in the healing process. Their intervention is active, and, in general, downplays the role of any mental and emotional factors that may cause the disease or play a role in its natural evolution or treatment (Eskinazi, 1998). The biomedical model is characterised as materialist in its focus on the corporeal body, yet at the same time abstract in its removal of the body from the soul and from the person. It is important at this point to stress that this is a *model* of health care prominent within conventional medicine, not a description of the approach generally taken by practitioners of conventional medicine. However, in saying this, the centrality of this model in conventional medicine does strongly influence how medical practitioners approach healing.

So how is this paradigm of health care reproduced; what are the institutionalised means by which the biomedical model retains its status as ‘conventional’? Although in many cases medical practitioners are utilising alternative practices or paradigms of care, the core of medicine (especially hospital-based medicine) lies within the biomedical model. As Frohock (1999:150) states, “western medicine today relies on a mechanistic view of the body that inclines physicians to regard illness as a malady caused by bacteria, viruses, or organic damage”. An important premise of this thesis is that this approach to health care is the result of alignments, strategic positioning, and organised claims-making. The biomedical model of illness is learned, and therefore, to understand the reproduction and consolidation of this model of disease, one has to consider medical training.

The establishment of the primacy of the biomedical model is consolidated at a number of levels including the selection criteria and training of doctors. In order to gain entry into either Otago or Auckland Medical School students must excel in the natural sciences, with the intermediate year primarily focused on biology, biochemistry and chemistry. Similarly, as students progress into medical training at Otago and Auckland, their education focuses on a study of the basic sciences and understanding “different body systems”:

Students [study] anatomy, molecular biology and social psychology, to population medicine and pharmacology...followed by physiology, organ systems and the structural mechanisms of the body...the clinical years...[include] surgery, obstetrics and gynaecology, paediatrics, psychiatry, pathology, general practice and immunobiology. (Auckland Medical School – Course Information 2000)

The selection procedure has the effect of drawing those applicants with a scientific orientation, with medical training precipitating a fragmented view of the body by focusing on developing the students' understanding of specific body systems. The specialised nature of these training programmes ensures the reproduction of a mechanistic biomedical view of the body. When students enter into medical school one of their first tasks is to dissect a human body, setting the agenda for their training where their object of study is the body and not the person (Nettleton, 1995:6). Further, as these medical students enter the hospital system, they are taught the finer points of their speciality, consulting medical journals and textbooks as sources of information on disease treatment and prevention. The body and particular diseases of the body are separated, and lines of communication fragmented, as junior doctors spend three months working within each medical speciality (Interview with 'Dr Allen',¹⁹ 3/5/00). Consultants are experts in their speciality; the stomatologists focus on the mouth, the cardiologists on the heart, and the oncologists on cancer, each treating patients in relative isolation. Thus, the compartmentalisation of the body is a two-way process within the medical system. On the one hand, the mechanistic view of the body encourages compartmentalisation of knowledge about, and practices on, the body. This is instilled in medical training as students are taught how to diagnose and treat patients on the basis of establishing a particular problem, from particular symptoms, in a particular organ. On the other hand, specialisation in medicine encourages the mechanistic view of the body as each speciality retains only the knowledge related to their particular organ, section of the human body, or disease. These are just some of the institutionalised processes that ensure the reproduction of biomedical model as 'conventional'.

¹⁹ Pseudonym.

Regulation of medical standards and consolidation of the biomedical model continues as doctors graduate from medical school and enter into either the hospital system or general practice. A number of agencies work to maintain 'professional standards' in medicine once a practitioner is qualified, the most formal of which are the disciplinary committees of medical councils (Dew, 1998:122). Since the Medical Practitioners Act 1995, the New Zealand Medical Council has had the power to order an assessment of a practitioner, regardless of whether or not a complaint has been laid. The Health and Disability Commissioner also receives, and has the power to investigate, complaints made against practitioners. These organisations attempt to regulate standards of medical practice and ensure the provision of only those treatments approved by the medical community. Further, although unable to exert direct influence, organisations like the Cancer Society and the Sceptics Society, in alliance with the medical community, can provide the public with information that attempts to expose 'quackery', which is another method of securing the position of biomedicine. These actors all contribute in some way to the construction and reproduction of biomedicine as the 'legitimate' form of medical knowledge. They are in part responsible for deciding which treatments are to be considered valid and which are considered invalid; which treatments are considered 'conventional' and which are considered 'alternative'. They ensure the primacy of the biomedical model in health provision, contributing to the ongoing construction of 'alternative' and 'conventional' medicine.

The biomedical model is also reproduced within the hospital system, and in particular, in interaction between medical practitioners (Atkinson, 1988:200). 'Appropriate' standards of doctor/patient behaviour are consolidated by the hierarchical and authoritarian teaching system operating within the hospital (Daugherty et al, 1998). The dynamics between residents (house surgeons) and physicians (consultants) establish the importance of exactness and objectivity, even in cases of ambiguity. An American study (Green et al, 2000) into deception by residents found that many were motivated to deceive to avoid being ridiculed and feeling embarrassed. When an attending physician belittled a resident for not recalling a specific laboratory value, the likelihood significantly increased that residents would lie to avoid this unpleasant consequence. This finding is backed up by a

recent study by Daugherty et al (1998) which found that 86 percent of second-year residents in America said they had experienced public humiliation or belittlement from consultants during their internship year. This practice of using humiliation and belittlement as a teaching tool functions to promote the dominance of 'hard' data and 'fact' in doctor/patient and doctor/doctor interaction, ensuring practitioner detachment and 'objectivity'. This behaviour has the effect of reinforcing the biomedical approach in conventional medicine, reproducing the ideals of objectivity, de-individualisation, abstraction, and rationalisation. This culture of authoritarianism and abstraction combines with a compartmentalised hospital system to dehumanise medical treatments, moving the focus away from the patient to the disease or the symptom.

Medical school selection procedures, medical training, hospital specialisation and in-hospital teaching procedures all have a regulatory effect, defining and reproducing what medical practices are considered 'conventional' or legitimate. These are some of the institutionalised means of ensuring the reproduction of the biomedical model as a central feature of 'conventional' medicine. But there are multiple actors involved in the construction and consolidation of 'alternative' and 'conventional' medicine and these include more than just organisations and health practitioners. As Callon and Latour argue, one cannot explain anything in purely social terms; society is made up of facts and artefacts that are important components in the construction of social phenomena (1992:348). Callon and Latour charge social constructionists within science studies with 'social realism', accusing them of not accounting for nonhumans in the 'ordering of things' (Callon and Latour, 1992:353). They argue that social constructionists have gone too far in prioritising the social, viewing social phenomena as being purely a result of human action. Callon and Latour maintain that the view of human action as exclusively determining the 'order of things' is just as reductionistic and misleading as 'natural realism' (that the physical i.e. nature, science presuppose social life, thus, prior to and determining human action). Focusing exclusively on human actors denies the ability of nonhuman actors to inscribe, to represent - to act. Thus, actor-network theory allows one to consider the extensive heterogeneous network of human and non-human actors that are

involved in the ongoing construction and consolidation of 'alternative' and 'conventional' medicine.

3.3 Boundary work as a networking process

There is no thinkable social life without the participation...of nonhumans, and especially machines and artefacts. Without them we would live like baboons.

- Callon and Latour, 1992:362

'Boundary work' in health care is the process of positioning and repositioning within a heterogeneous network of actors, including health organisations, patients, practitioners, medications, technologies, needles, lab coats, herbs, microscopes and diseases to name merely a few. All these actors are involved in some way in the contestation over what constitutes a legitimate health care practice; each is involved in the ongoing construction of boundaries between 'alternative' and 'conventional' medicine. Actor-network theorists argue that the basis of the social order is given by establishing systems of differences, classification and category building that are in part maintained by non-human actors (Latour, 1988:171). Actors, both human (e.g. doctors, patients, family, naturopaths, reporters, politicians, scientists) and non-human (e.g. x-rays, mammograms, chemotherapy drugs, hospital beds, prescription pads, cancer), actively contribute to the construction and reproduction of what is considered 'alternative' or 'conventional'. They are all involved in the generation of qualities and attributes (Law, 1992:380), the 'marking' of 'alternative' and 'conventional' medicine as having certain features.

In this thesis I explore how 'alternative' and 'conventional' medicine are created and maintained by these actors; how they are a result of past, and present, actions. It is argued that 'alternative' and 'conventional' in medicine only exist insofar as these actors, both human and non-human, continue to produce them. Conventional and alternative medical knowledges are the product of organising and ordering information, the product of "test tubes, skilled hands, microscopes, computers, articles, conferences and so on" (Law, 1992:381). Knowledge is not just a mass of material matter; it is the *ordering of materials* and sets of relations. Thus, actor-network theory provides a method of analysing the

health provision network by viewing ‘conventional’ and ‘alternative’ medicine as the result of processes in which bits and pieces of the social, the technical, the conceptual, and the textual are pieced together (Law, 1992:381).

So how does one use actor-network theory to conceptualise the construction of ‘alternative’ and ‘conventional’ medicine? How do non-human actors contribute to the reproduction of the biomedical model – the construction of ‘conventional’ medicine? Berg (1997) applies actor-network theory to illustrate how both human and non-human actors *assist* the reproduction of the biomedical model in the computerised hospital system. He argues that computerised medical records and other medical technologies are “formal tools” that play a regulatory role, sustaining the primacy of the biomedical model in health provision. Berg suggests that the computerising of patients’ diagnostic information (e.g. type, progress, and aggression of cancer, blood pressure, age, sex, psychological condition, disease history and so on) within the hospital system operates on “circumscribed input elements using sets of prefixed rules or formulas” for making decisions about treatment and care (Berg, 1997:406). This system, he argues, is based on sets of explicit “if...then” rules that clearly delineate the ‘legal’ from ‘illegal’. In this way only some types of input and only certain actions are allowed. Embedded in these rules are circumscribed, abstract models of the workplace in which these tools are to function. The electronic medical record contains a form called “medical progress notes”, indicating what has to be investigated, in what sequence, and the terms that should be used to describe the findings. This record simultaneously models both the work (to be) performed and the primary object of that work: the patient’s body (Berg 1997:406). By offering abstracted models of the work and/or by processing input into output, these “formal tools” play a central role in organising and regulating interaction within the hospital system. Berg illustrates his point with a description of his experience in the hospital:

The...rail allows a set of infusion pumps and bags, monitors, and perfusors to be positioned around the patient, without cluttering the floor space around the bed too much. Anybody familiar with medical wards, however, is first struck by the presence of large computer terminals at many of the beds. Nurses and doctors stand around them, glancing at papers, the monitors, the infusion bags, clicking at the menus on the screen, and filling in the fields. These are the workstations of the electronic medical record system that has just been implemented here. It is a novel project, integrating the nursing and the medical

record, and aimed at “a paperless ward”; the complete replacement of the paper-based nursing and medical record by its electronic equivalent. (1997:405)

Using actor-network theory, Berg illustrates the role of technologies in the generation of network effects such as the biomedical model. As he argues, the computerisation of pathways restricts diagnosis, prognosis and treatment options, contributing to the reproduction of the underlying assumptions of the biomedical model. Medical technologies are actors that are both produced by, produce and reproduce ‘conventional’ medicine. As Berg illustrates, in analysing social processes such as the construction of boundaries between alternative and conventional medicine, we must take into account the non-human – syringes, chemotherapy drugs, pills, drips, CT scans and hospital sheets. We must consider pendulums, frequency machines, herbs and crystals as part of the process of generating difference between ‘alternative’ and ‘conventional’ medicine. These are “formal tools” that assist human actors in the reproduction of knowledge and discourse.

Each technology within the hospital system plays a part in the reproduction of the biomedical model. Samson (1999:15-16) picks up on this point in relation to new forms of medical imagery, arguing that the increasing use of computer technology in medicine and the representation of the patient via computer generated results consolidates the mechanistic view of the body, making it more and more difficult to differentiate between patient and machine. Donna Haraway also picks up on this with her concept of the ‘cyborg’ (1997:126-127), the fusion of machine and organic matter. Just as Descartes compared the human body to a clock, suggesting that it could operate mechanically without the mind,²⁰ allopathic medicine has developed a metaphor of the human body as machine; a conceptualisation that is reinforced through the use of machines to understand, observe and enter the body (Samson, 1999:14). One implication of this is that bodies become reconfigured through their interaction with non-human actors such as imaging machines.

²⁰In his book *Meditations on First Philosophy*, Descartes developed the mind-body dualism which was grafted on to seventeenth-century medico-scientific ideas to provide a solid turn towards the notion of the body as machine. Descartes himself compared the body to a clock, which could operate mechanically without the mind (Samson 1999:10).

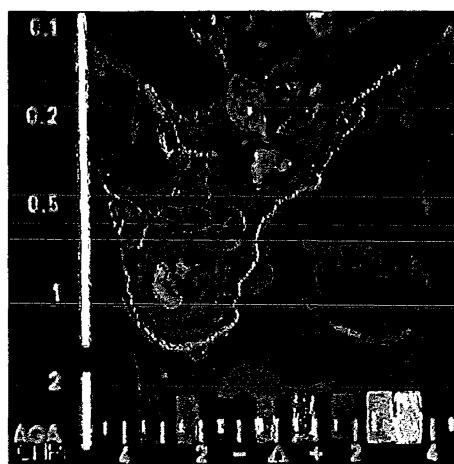


Figure 3.1: Through the thermagram, yellow cancerous tissue contrasts with the rest of the body's blue and green colouration (Encarta® 1997)²¹

Through imaging, the physician can further abstract the physical body, which becomes reconfigured by new technologies into “landscapes, graphs, maps and colour resonates” (Samson, 1999:16), a new geography or landscape. Imaging technology fragments the body into colours, shapes of grey, cell lines and graphs. The patient is removed from the diagnostic process as body parts are depicted on the flat computer screen, enhanced, replicated, enlarged, reduced, recorded and recreated (Samson, 1999:16). The patient is reduced to a collection of cells, no longer a sentient human being, but rather a figure - an equation to be solved. Technologies such as the thermagram above are both produced by, and produce, the biomedical model. They participate in the performance of the work tasks, managing the patient's trajectory together with the doctors and nurses (Berg, 1997). Moreover, they transform the human body, regulating and limiting both doctor/doctor and doctor/patient interaction. These technologies embody the biomedical model, and are actively involved in the reproduction of ‘conventional’ medicine.

²¹ "Cancer (medicine)," *Microsoft® Encarta® 97 Encyclopedia*. © 1993-1996 Microsoft Corporation.

3.4 Models of disease

As I have illustrated, the construction and consolidation of ‘conventional’ medicine occurs at a number of different levels, including medical training, regulatory bodies, in-hospital teaching methods, ethics committees, medical review boards, health organisations and biomedical technologies. All these actors contribute to the production of ‘conventional’ medicine’, actively reproducing the primacy of the biomedical approach to health care. As a result, they, among others, construct the following discourses as prominent within conventional medicine:

Table 3.1: ‘Conventional’ medicine

Mechanistic:	The body is compartmentalised.
Symptomatic:	A condition is reduced to a category, a single disease entity which exhibits a distinctive set of symptoms.
Objectivity:	The practitioner is separate and detached from the patient, maintaining objectivity, assisted by scientific evidence.
Quantification:	Information is derived from what can be quantified.
Determinism:	Phenomena can be predicted from knowledge of scientific laws.

This is an oversimplified ‘ideal’ representation and is not an attempt on my part to summarize the main features of conventional medicine. Rather, the objective is to consider how conventional medicine is represented and the effect of such a representation in terms of the ordering of health professionals. Moreover, I am interested in the role of the media and various health practitioners in both constructing and contesting this representation (see Chapters 4 and 5).

Just as there are multiple actors involved in the production of conventional medicine, this is also the case for alternative medicine. Alternative medicine is continually being produced within a heterogeneous network (see Law, 1992:381) containing multiple

actors, both human (practitioners, patients, training institutions, regulatory bodies, politicians, reporters) and non-human (herbs, diets, frequency machines, pendulums, x-rays, charts, computers), all contributing to the ongoing construction of 'alternative medicine'. Invariably, 'alternative' medicine is constructed by actors such as the media, practitioners, patients and academics as 'natural', 'traditional', 'non-invasive' and 'holistic', focusing on the individual rather than the illness (see McKee, 1988; Coward, 1989; Frohock, 1999). This is of course a boundary work strategy that aims to establish a distinction between 'alternative' and 'conventional' practices. It normalises the association of the 'alternative' therapist with these characteristics, often regardless of the specifics of particular modalities.

While 'mechanistic' medicine is presented as ignoring the emotional or spiritual aspects of health and healing, 'holistic' therapies are promoted as treating the person as a whole.²² As becomes evident in Chapter 5, alternative practitioners tend to represent their profession as based on balancing the emotional, social, physical, and spiritual dimensions of the person, emphasising the importance of stimulating the patient's own healing process. Moreover, alternative practitioners tend to construct themselves as utilising a holistic approach, placing a strong emphasis on the interaction between the living body and the spirit, encapsulating all parts of the person. Treatment is said to be based on promoting the individual's responsibility for maintaining his/her own well-being and health, including the prevention of disease (Coward, 1989:24). While 'conventional' practitioners stress the importance of pathological factors (bacteria, viruses, environmental agents) in the causation of disease (aetiology), 'alternative' practitioners tend to maintain that decreased resistance brought about by poor habits and physical and mental stress make the body susceptible to disease or illness. Ill health, therefore, is constructed as an imbalance between social, economic and emotional stresses, as well as being physiological. Thus, the following are discourses often associated with alternative therapies:

²² *Holistic* is derived from the Greek word *holos*, meaning whole; holism is a philosophy that entails treating the body as a whole body (one unit) rather than individual parts.

Table 3.2: 'Alternative' medicine

Self-healing:	The body has a 'natural' ability to heal itself and maintain homeostasis.
Holism:	A person is a subtle and complex blend of body, mind, and spirit.
Patient-centred:	Treating root causes is more important than just managing symptoms - each person is unique.
Self-help:	The patient must take responsibility for his or her own wellness.
Intimacy:	The client/practitioner relationship is seen to aid healing through intimacy, intentionality and awareness of multiple variables in illness.

Thus far I have presented two stereotypical constructions of alternative and conventional medicine, representations in part generated by the boundary work done by those who participated in this research. The tendency in sociological examinations of the dynamics between alternative and conventional modalities has been to present alternative medicine (or at least specific modalities) as 'the underdog', suppressed by the dominance of the medical community, a victim of advanced capitalism (see Coward, 1989; Bakx, 1991). I will argue that this approach misrepresents the complexity of these interacting, interdependent institutions, telling us little about the ongoing process of constructing, consolidating and contesting institutional boundaries. The intertwining of alternative and conventional modalities, and the variable use of particular mechanisms evidenced in the rhetorical strategies of the practitioners I interviewed, disrupts the construction of alternative and conventional medicine as in opposition. It is argued here that this discursive opposition is generated by the rhetorical strategies of particular actors in order to sustain their occupational territories.

Conceptualisations that focus on alternative medicine as 'the underdog' invariably fail to grasp the power of the 'oppressed' and the infirmity of the 'oppressor', and thus misrepresent both conventional and alternative medicine. The health practitioners I interviewed, both 'alternative' and 'conventional', are strategic in that they are involved in catering to a particular market, generating an image through a variety of mechanisms

to justify this role. Alternative practitioners and conventional practitioners are actors within particular networks, consolidating and articulating their positions, their philosophies; contributing to both the definition of their mode of treatment, and the definition of other modes of treatment. However, it may be strategic to construct certain practices as oppressed or passive, and certainly this can be seen in Chapter 4 when I explore how *both* alternative and conventional practitioners are presented in the mass media as ‘undervalued’. The boundaries between alternative and conventional are an outcome of negotiations between two networks, each of which contains a unique set of actors. But, these networks collide because some actors belong to both, or exist within the same network.

The models of healing I have presented in Tables 3.1 and 3.2 are not independent entities. They are paradigms that generate a perception of these health practices as independent. They are social products, continually being reconstructed and reconstituted. As practitioners become aware of or accept other modes of healing, parts of these models (or practitioners’ interpretations of these) may be inserted into their daily practices, often contradicting their rhetorical strategies. This is evidenced in the growing number of claims from the medical community that they provide holistic, integrative care for their patients. Further, each of the alternative practitioners interviewed had a slightly different idea of what it meant to provide ‘holistic’ care. Moreover, in many cases alternative practitioners are seeking scientific validation for their treatments and organising meetings based on establishing rational scientific explanations for their practices (e.g., naturopathic “Metagenic” seminars). This illustrates that holism and biomedicine do not operate exclusively in practice, nor are they set concepts. As I shall demonstrate in Chapter 5, both the alternative and conventional practitioners use elements of both paradigms of illness in their practices and in their discourses regarding legitimacy. Both models of illness are the result of organisational processes, professional practices and rhetorical statements. Holistic care and the biomedical model are key categories that are being continually reconstituted over time and space. The need to establish a paradigm of care, and to articulate what that paradigm means, is only meaningful in terms of ‘other’ actors in the network. The need to articulate what is meant by ‘holistic’ care or ‘evidence’

emerges from the interaction between alternative and conventional modalities. It is a means of defining and protecting methods of validation and limiting the extent to which other actors may encroach on one's territory.

'Boundary work' takes place at different levels and in many different locations (e.g. medical schools, hospitals, parliaments, medical practices, public debates, health councils). The following discussion focuses on 'boundary work' that is done on a more abstract level than that discussed so far. I am referring to the 'boundary work' strategies of social commentators in their attempts to conceptualise the nature of, and dynamics between, alternative and conventional medicine.

3.5 Entering a theoretical debate

This section examines past conceptualisations of the division between alternative and conventional medicine. It uses the conceptual frameworks developed earlier to address the question of whether or not recent developments in health provision reflect what some refer to as 'the postmodern condition' (Turner, 1992; Easthope, 1993; Saks, 1998). This debate surrounds the tension between plurality and hegemony. It addresses the question of whether the (re) emergence of alternative medicine represents a transformation in health care practices based on multiplicity and individualisation (postmodernity), or whether it merely represents the successful assimilation of certain alternative modalities by conventional medicine (modernity). My interest is in the way the boundary work done by the media, practitioners, organisations, politicians and individual actors is often based on an oppositional representation of the 'other'. Conceptualisations developed by social commentators who reflect on conventional medicine as 'modern', and alternative health practices as 'postmodern', are also a form of boundary work. Alternative practitioners (at least those I interviewed for this research) position themselves as focused on the individual, on narrative, and on the promotion of a plurality of truths regarding healing, whereas conventional practitioners construct themselves as objective and rational, focused on controlling disease. The modern/postmodern theoretical debate is an abstraction of the rhetorical strategies that practitioners use to position themselves and generate 'difference'. I will argue that just as the practitioners construct 'difference'

through the rhetorics of 'science', 'nature', 'ethics' and 'holism', academics construct difference by representing practices in theoretical oppositions: macro/micro, individualised/generalised, objective/subjective, modern/postmodern (see McGee 1988; Bakx, 1991; Turner, 1992; Frohock, 1992 Easthope, 1993).

What do modern, modernism and modernity mean in this thesis? According to Bilton (1997:664), modernity is a term designed to encapsulate the distinctiveness, complexity and dynamism of social processes unleashed during the eighteenth and nineteenth centuries, which mark a distinct break from traditional ways of living. Modernism is generally used in a very ambiguous way to refer to the philosophy or culture of the modern period as a whole. An easy way of understanding the connection between modernity and modernism is that modernism is the result of the actualisation of modernity or late modernity (Cahoone, 1997:13). Postmodern theorists question whether society is still modern, sparking a defence from those who maintain the dominance of modernity or subscribe to the notion of a developed or late modernity (*vide infra*). The debate over the nature of alternative medicine illustrates these issues.

Why is conventional medicine considered modern? The obvious starting point is conventional medicine's determination to maintain its biomedical approach to illness. Medicine focuses almost exclusively on progress and treatment through scientific methods, the observation and control of organisms. The result, acknowledged by medical practitioners, is that other aspects of health treatment, such as spirituality, nature or holism, are at best secondary in medical treatment. Further, because it is both self-regulating and has been able to regulate the practices of other professions, the medical community has come to be perceived as very powerful, dominating and exclusionary. This control can be seen in the ability of the medical community, not merely to maintain its position in relation to 'alternative practitioners', but also in relation to groups like physiotherapists, midwives and nursing staff. Saks explains why conventional medicine is seen to be a modern, powerful institution:

The relationship between complementary and orthodox medicine...can be seen as a fluid battleground in which the medical elite has successfully employed a variety of

mechanisms including ideological invection and promotion/disciplinary levers both internally and externally to preserve and, where possible, enhance its position against the threat of non-medically qualified practitioners of alternative medicine (1998:203).

Saks argues that conventional medicine has employed a variety of mechanisms based on modernist principles to maintain a position of dominance. By focusing on the objectification and depersonalisation of the patient, the patient becomes a collection of molecules to be controlled through medical practices or technologies. This, according to Saks, reflects the modernist tendency for control over nature, with the reduction of treatment to a physical and objective level of truth. These mechanisms or ideals are justified with the aim of limiting human error, seeking validity, maintaining ethics, and ensuring consistency and professionalism in the treatment of patients. This presents conventional medicine as promoting dehumanising principles, focused on quantification rather than intimacy, and aimed at progress through utilitarianism.

But is not this representation too simple? Can we not see glimpses of quantification, symptomatic diagnosis, hegemony, reductionism, and exclusion within alternative modalities? Surely alternative practitioners are also concerned with professional standards, ethics and regulations? Furthermore, don't conventional practitioners cater to patients' psychological states (social workers), spiritual needs (chaplains), and put work into ensuring equal power in patient/doctor interaction (ethical guidelines)? If so, how can we maintain the modern/postmodern thesis of alternative and conventional medicine? Why are such claims being made?

3.6 Emerging postmodern practices?

In recent years, the grand visions of emancipation, liberalism, Marxism, and other political perspectives of the modern era have been deemed excessively totalising and grandiose, occluding differences and neglecting more specific oppressions of individuals and disparate groups (Mohan, 1994). The liberal project of providing universal rights and freedoms for all has been challenged by specific groups struggling for their own rights, advancing their own specific interests, and championing the construction of their own cultures and identities. The contemporary world is undergoing major transformations, and

the discourse of the postmodern serves to call attention to the changes and novelties of the present moment. A number of commentators are now suggesting that society has moved into a state of postmodernity, and that in terms of health care, the emergence of alternative medicine is reflective of this societal change (Bakx, 1991; Turner, 1992; Easthope, 1993). In order to unpack this claim it is first necessarily to refine what is meant by postmodernity and postmodernism.

Postmodernity denotes a transformation in social, cultural, economic and political arrangements, including differentiation, aestheticisation, and the fragmentation of experience, with multiple ways of experiencing space and time (Abercrombie, 1994:327). Postmodernism, however, is a cultural environment characterised by a pastiche of cultural styles and elements, implying a scepticism regarding order and progress, and promoting diversity and fragmentation. Postmodern thinkers criticise presence (versus representation and construction), origin (versus phenomena), unity (versus plurality) and the transcendence of norms (versus their immanence) (Cahoone, 1997:15). Postmodernity is primarily a condition based on diversity, indeterminacy, multiplicity, fragmentation, and flexible specialisation, in contrast to the totalising themes of modernity. Postmodernity is often seen as positively restoring the indeterminacy of the world and promoting choice and freedom of expression, as opposed to the hegemonic influence of modernist paradigms (Bertons, 1995).

What is important here is why alternative medicine has been viewed as postmodern. Easthope (1993) suggests that alternative/complementary therapies are reflective of the shift to postmodernity because they reject absolute, and especially scientific, authority. He argues that alternative medicine offers the consumer 'ownership' of disease, it offers diversity of choice, a plethora of complementary practices which reflect the diversity of lifestyles, tastes and worldviews (1993:294). Easthope maintains that alternative medicine offers a mode of interaction that encourages attention to the uniqueness of the client, and provides a customised service. This, he argues, is a reflection of the rise of postmodern society, which presents medicine with a serious issue of a declining market. The jobs of doctors, he suggests, are under threat:

What complementary medicine offers...is a mode of interaction with the patient that is long-term, collaborative and is centred on each patient as a unique individual. Such a mode of interaction is more likely to produce positive effects for those suffering 'lifestyle diseases'. It is also more in tune with a postmodern society where authority is suspect and the consumer demands diversity of choice, control over their own health and individual attention (Easthope, 1993:299)

Bakx (1991) reinforces this argument, suggesting that alternative medicine represents both a disruption to the dominance of biomedicine, and development of a pluralistic, postmodern mode of health care. He contends that alternative medicine represents a new, reflective, individualised form of medicine that contests the autonomy of conventional medicine in Western society. Bakx (1991:20) claims that the decline in the monolithic cultural authority of biomedicine is a result of counter-cultural disillusionment with the modernist project, preparing the way for the coexistence of a diverse range of perspectives, including both alternative and conventional medicine in health care. In effect, he suggests that the waxing of alternative medicine and the apparent waning of conventional medicine reflect the postmodern state of contemporary Western societies, and thus, the dissolution of the modernist project. Turner (1990, 1992) reiterates this argument, citing the existence of multiple validated modalities. He claims that in the face of the challenge from complementary therapies, the hierarchical division between scientific medicine and alternative medicine collapses. This results in the deregulation of health care in which licences to practise become increasingly irrelevant in the marketplace of hyper-consumption, as society is transformed from the modern to the postmodern.

Constructing an image of mutual compromise, Willis (1994:62) argues that there is a decreasing incommensurability between alternative and conventional medicine, the result of which has been a *convergence* of practices. To support this argument he cites the inclusion of conventional techniques and practices within alternative medicine, the heightened responsibility of alternative practitioners and a willingness to refer to conventional practitioners. Further, he argues that an acknowledgement of occupational limitations, the use of complementary treatments by medical practitioners and the movement away from scientific legitimacy to clinical legitimacy is evidence of a

convergence of 'alternative/complementary' and 'conventional' medicine, at least amongst the more widely accepted complementary modalities (Willis, 1994:62).

The argument for integration and pluralism is disputed by others who argue that what is being perceived as pluralism is a process of assimilation and exclusion by conventional medicine (Fuller, 1989; Lupton, 1994; Nettleton, 1995; Dew, 1998). Both Fuller and Dew argue that alternative modalities such as chiropractic and acupuncture, seen by many as the success stories of alternative medicine, have in part submitted to the hegemonic influences of orthodoxy. Fuller (1989:67) states that these professions have muted their metaphysical overtones, dropping their mesmeric origins in exchange for access to the hospital and insurance industries. Dew (1998) reiterates this, stating that by moving towards the core of conventional medicine to seek validation, chiropractic and acupuncture compromised their ideological roots. Further, Dew (1998:257) contests Willis's claim of decreasing incommensurability, suggesting that the reason certain alternative practices have become 'complementary' is because they have been drawn into or assimilated to the biomedical model, invoking a hegemonic image of the dynamics between alternative and conventional practices.

In support of decreasing incommensurability, Willis cites the increasing focus on clinical legitimacy, suggesting that science has become less central in establishing the legitimacy of practices (1994:64). For Dew, decreasing incommensurability has not been responsible for the legitimization of particular alternative practices; rather, it has been the *presentation* of particular therapies as "rational and scientific" that has gained them recognition (1998:257). Lupton (1994:127) reiterates this by arguing that in their struggles for legitimacy, alternative therapies have weakened the boundary between holistic and conventional medicine, losing their ability to provide an 'alternative' to scientific medicine. Willis does not deny the influence of scientific legitimacy, but rather emphasises the increasing trend towards the integration of outcome measurement in the validation of alternative treatments. Dew claims Willis is "overlooking the philosophical basis of these alternative practices, and simplifying the political and social struggles that have led to the situation where some have become more accepted" (1998:258). Thus,

Dew's 'hegemonic limitation' and Willis' 'convergence' clearly capture the ongoing contestation over the nature of the relationship between alternative/complementary and conventional medicine in contemporary western society.

So how does one resolve these seemingly contradictory representations of this relationship? Is the relationship between alternative and conventional modalities hegemonic or are we witnessing compromise on both 'sides', resulting in the development of better health care services? What is certain is that the modern/postmodern dichotomisation is an inadequate representation of the dynamic relationship between alternative and conventional medicine. Changing relationships between modalities have made this representation problematic as it offers an either/or rather than a complex understanding of their interconnectivity. Furthermore, the interconnectivity of alternative and conventional medicine, illustrated in the following chapters, deconstructs theoretical oppositions (i.e. conventional/alternative - hegemonic/pluralistic, objective/subjective, fragmented/centralised) so often used to conceptualise these complex and often contradictory social phenomena. Just as presenting health practices as exclusively 'natural', 'holistic', 'scientific' is a form of boundary work (as we shall see in the following chapters), so is the presentation of practices as inherently modern or postmodern.

3.7 Late-modernity

Giddens (1990) insists that modernity is not a singular entity fused together by Enlightenment ideas, a view that has led many to assume that modernity has passed. He argues that modernity is made up of a number of conflicting and contradictory parts (e.g. different modes of health care). He views western industrialised society's present state as modernity coming to understand itself rather than reflecting a new state of postmodernity (Giddens 1990). This conceptualisation is more helpful for understanding recent developments in health provisions and in particular the relationship between alternative and conventional medicine (see Nettleton, 1995:194-195). The reasons for this are multiple. Firstly, instead of viewing recent developments as indicative of a movement

towards multiplicity, one could view recent expansion of interest in alternative medicine, and apparent cynicism towards the biomedical model, as reflective of modernity revising and expanding itself. Giddens suggests that modern values still play a major role in social life, but at the same time, one can see the emergence of ways of life and forms of social organisation which diverge from those fostered by modern institutions (1990:52). Further, these elements can co-exist neither in a state of assimilation, nor in complete plurality; they are neither completely modern, nor completely postmodern. These distinctions become meaningless as elements produce each other, evolving in relation to other elements, constructed in part, by the 'other'. This is evidenced as alternative modalities attempt to gain legitimacy through clinical trials, professional standards, and regulations, the establishment of journals and state-recognised training programmes and state funding.

It is for this reason that the modern/postmodern, hegemony/plurality argument becomes problematic - both alternative and conventional medicine are complex and contradictory. As Easthope (1993) suggests, alternative practices are not exclusively natural, individualised or holistic, just as conventional medicine is not purely scientific, objective and rational. Alternative modalities are bound in many ways to modern ideals seen in the commodification of products,²³ the utilisation of scientific rationale for treatments²⁴ and the development of professional qualifications and regulations for their practices.²⁵ Thus, one needs to view both conventional and alternative modalities as a convergence of multiple paradigms. This will be illustrated in the analysis of conversations with 'conventional' and 'alternative' practitioners in Chapter 5.

²³ In collaboration with international pharmaceutical companies, organisations of alternative practitioners are entering into the worldwide market for natural products. Through alliances, corporations receive legitimacy in association with practitioners, and practitioners secure their market. This move has also resulted in the development of practitioner only substances to ensure access to 'natural medicine' is still mediated through practitioners (Interview with 'Ann Corbett', 30/8/2000).

²⁴ Although the practitioners interviewed criticised the politics and methods involved in 'scientific' experiments, they supported 'scientific' outcome measurement.

²⁵ The Christchurch School of Natural Medicine supports certain modalities, but not others, both regulating the practices used by their graduates, and ensuring that correct 'protocol' is maintained by establishing minimum levels of achievement for gaining their qualification.

3.8 Discussion: Conceptualising ‘boundary work’

What are we to do, if we can move neither forward nor backward? Displace our attention. We have never moved either forward or backward. We have always actively sorted out elements belonging to different times. We can still sort. It is the sorting that makes the times, not the times that make the sorting (Latour 1993:76).

Bearing in mind the theoretical considerations discussed above, I will outline the theoretical framework used within this thesis. Firstly, ‘alternative’ and ‘conventional’ are viewed as a product of historical and ongoing interaction between various actors, which are variable over time and space. They are continually produced by training programmes, institutionalised methods of interaction, state regulations, health organisations, medical journals, pharmaceutical companies, ethics committees, technologies, and so on. Medical knowledges, alternative and conventional, are not inevitable, rather, they are the outcome of negotiations and contestations between different organisations and knowledges. They are the outcome of ‘boundary work’, the process by which alternative and conventional knowledges are constructed, consolidated and contested.

Secondly, attention to the socially constructed nature of medical knowledge does not negate its validity; it is a way of analysing its position within the health care network. My purpose is to question the process whereby claims to scientific knowledge, objectivity, validity, ethics etc... are legitimated. Similarly, alternative practices are not endorsed because of their claims to holism, connection to nature and so on. What is important are the mechanisms by which this position is maintained and justified. The Liam Williams-Holloway case is examined as a controversy that makes apparent how positions within the health care network are constructed, consolidated and contested. The actors involved are viewed as using multiple mechanisms to validate their positions, and the media debate is an abstraction of this process.

The focus of this thesis is an exploration of the dynamic relationship between conventional and alternative medicine with reference to a particular medical controversy. It is about how practitioners articulate the validity of particular practices. I will examine ‘boundary work’ as a method of positioning and repositioning within a heterogeneous

network of health care providers, organisations, consumers, practitioners and non-human actors. All these facets are involved in the contestation over what constitutes legitimate health care practices; each is involved in the social construction of boundaries between alternative and conventional medicine.

Chapter 4

Constructing difference

*The media's role in the construction of boundaries
between 'alternative' and 'conventional' medicine*

4.1 Media wars

The media plays an important role in our lives, relaying information and misinformation, the difference between the two at times barely discernible. Moreover, the mass media play a central role in shaping public discourse about health risks and the validity of particular practices (Stallings, 1990). They provide a platform for experts to express their conflicting points of view, mobilise public opinion, and contribute to setting policy agendas and influencing political decisions (Nelkin, 1991; Richards, 1991). The objective of this chapter is to analyse this process of 'boundary work' as it occurred in the media debate over the treatment of Liam Williams-Holloway. As I have argued, this process is vitally important to reorganising and maintaining a particular structure of health care. The role of the media in this process of boundary work is also important as they represent certain constructions, certain boundaries, and certain representations that exist in health care. In accomplishing its tasks, media outlets draw on the discursive and regulatory practices of health organisations, health practitioners, politicians and individual actors to construct 'an angle' in relation to a particular social issue. The various facets of the mass media, including newspapers, magazines, television and radio, offer positions to the public, using discourses about 'science', 'nature', and 'ethics' to validate these positions. The media is a fundamental player in 'boundary work' as it both represents and reproduces positions that actors take in relation to alternative and conventional medicine.

This chapter is the fundamental reference point for this entire thesis. The other facets of this research project were aimed at ‘making sense’ of this public debate, developing a conceptualisation of paradigm shifts and analysing the actions of players within this controversy. This chapter is focused on exploring the construction of this controversy over time, both between and within publications. It is aimed at analysing the discursive practices of the media while attempting to ‘make sense’ of the actions of the parents, the authorities, and the public. In effect, this chapter is an analysis of multiple, intertwined, and at times polarised, discursive polemics. These media reports are not a reflection of actual practices, they are a pastiche of discursive practices, continuously reorganised and reconstituted to adapt to, impact on and appeal to certain actors and audiences. The media reporting is both produced by and produces discourse; the media is a set of heterogeneous actors, intermingling with other actors, contributing to, but not dictating the construction, consolidation and contestation of boundaries between alternative and conventional medicine. The media is a means by which discourse is transmitted, a process by which actors can articulate their own position or contest the positions of other actors. It is a source of multiple representations, the provider of multiple positions, influenced by a multiplicity of actors and their discursive practices. This makes it an important source of contestation and articulation, an indirect but vivid representation of conflicts between various actors or organisations. It provides a view of the interconnectedness of conflicting knowledges, demonstrating the ongoing process of knowledge construction and legitimisation of various practices and techniques.

4.2 Theorising discourse

The term ‘discourse analysis’ has come to represent many different analytical approaches, making it progressively difficult to know where to begin a discourse analysis, or even to know what exactly it is (Threadgold, 2000:49). Therefore I will begin this chapter with a discussion of the nature of discourse, and discourse analysis. This is aimed at developing a framework for conceptualising the material analysed within this chapter.

The production of discourse is a social act and therefore written discourse is the representation of a social act (Yule and Brown, 1987:1). Threadgold (2000) uses Foucault's argument that discourse constitutes the social, including objects and social subjects. He claims that we are both produced by and produce discourse. According to Threadgold, discourse is a *practice* we impose on things. It does not work hand-in-hand with what we already know, *it produces the things of which it speaks* (Threadgold, 2000:49): the functions for the subject, the positions for the subject, the possible technologies, objects and behaviours. Foucault believed that we should not look for meanings in discourse but rather search for the external conditions for its existence, its appearance and its regularity. We should explore the conditions of its possibility; just how it is possible to know that, to think that, to say that (Foucault, 1971). Foucault's understanding of discourse is useful because it seeks patterns of appearance and absence across a diversity of texts from various institutional sites. It acknowledges the relevance of the discursive and the non-discursive, as emphasised by actor-network theorists, without placing these in determining relations. Lastly, Foucault used discourse not to determine the meaning of an individual text but rather to identify the effects of texts, the impact of their being said, at that particular place, at that particular time (Foucault, 1980, 1981). This is useful here, as I am interested in the effect of these media texts, and the role they play in the construction of boundaries between alternative and conventional medicine. The key point here is that Foucault (1994a: 681) viewed discourse as an event:

...not codes, but events: the conditions of existence of statements, that which renders them possible -- them and not others in their place; the conditions of their singular occurrence; their correlation with other previous or simultaneous events, discursive or not.

Discourse is what makes particular statements about the Liam Williams-Holloway case possible. Discourse is the connection between these statements, or texts, and other events. Discourse is important because it is a source of power. According to Foucault, power is not, exterior to, nor outside of, discourse. Power is neither the source nor the origin of discourse - power is something that operates through discourse (Foucault, 1994b: 465). Discursive practices, such as those we shall see in the media debate over Liam Williams-Holloway, contribute to the construction of particular 'subject positions'. As a source of

positioning within social arrangements, discourse has the effect of reproducing social relationships, identities, and systems of knowledge and belief (Fairclough, 1992a: 65). In this way, discourse can be used to both reproduce and contest power relations. Discourse is neither socially determining (which negates agency) or merely a product of independent social action (which over-represents agency). Both these assumptions would be reductionistic; the former transforms discourse into a reflection of a deeper social reality, and the latter idealises discourse as the source of all that is social (Fairclough, 1992a: 65). I will treat human actions as *mediated* by discursive formations. We make decisions and assume positions in relation to alternative and conventional practices within existing discursive formations that attempt to ‘make sense’ of social organisation. Thus, discursive practices, such as those seen within the media, establish, sustain and disrupt ideological and institutional boundaries. They function to naturalise particular power relations and ideological stances. Further still, these very conventions within discursive practices become sites of struggle, as we shall see in the debate over Liam Williams-Holloway.

It is important within this discussion to conceptualise the struggle between discursive formations and the re-articulation of occupational territories as a result of this contestation. This contestation results in the restructuring of the order of discourse. In essence, the boundaries between discursive elements are continually shifting in orientation as a result of contestation. As the boundaries between practices are articulated through discursive struggle, new elements emerge. Thus, to view discursive struggle as a matter of subordination/domination or weak/strong dichotomies is far too simplistic and in fact quite inaccurate. Institutional forms are intertwined to such an extent that all elements are continually shaping and articulating both their own territories and those of the ‘other/s’. In examining ‘boundary work’ one needs to consider the conditions of the existence of ‘alternative’ and ‘conventional’ modalities. What makes ‘conventional medicine’ possible, or what discursive practices *produce* these particular practices as ‘conventional’ and ‘scientific’, as ‘alternative’?

Thus, textual discourse, discursive practices and social practices are interdependent; this understanding underpins a discourse analysis. As I shall demonstrate, the discursive practices within the media are in part representations of the discursive practices of the interviewees and the ideological stance that they seek to sustain. In this way, social actors (e.g. doctors, parents, the state, alternative health practitioners) both constitute and are constituted by textual discourse.

4.3 The role of the media

The mass media have become an extremely influential part of contemporary society. With the advent of globalisation, reliance on the mass media for information has exponentially increased. In 1997, 2.5 billion people watched some part of Princess Diana's funeral, a testament to both an increasingly global culture, and the role of the mass media in sustaining this culture (Heibert & Gibbons, 2000:110). It took about a hundred years after the development of Gutenberg's movable type and printing press in the mid-fifteenth century for publications to be started that printed periodical news. In the mid-sixteenth century, hand-written weekly news sheets called gazettes were sold in the piazzas of Venice. Fifty years later, in 1609, *Zeitung*, a publication printed weekly with some rudimentary facts about local life, appeared in Germany (Heibert & Gibbons, 2000:143). Three centuries later newspapers became the largest mass medium, providing political, economic and social information to the general public. Newspapers have long been regarded as the medium of record in society, relaying health news, sports results, literary criticism and scientific developments. They have been considered a more or less 'truthful' account of important public events and a reliable interpreter of their meaning (Heibert & Gibbons, 2000:141). Newspapers serve as an index to life, including such details as births, deaths, marriages, bankruptcies, crime reports and community calendars. This chapter is about *how* particular newspapers have 'indexed' Liam's story. It explains the discursive production of 'difference' between alternative and conventional modalities in contemporary New Zealand society. The objective is not to establish a general picture of how the media presented alternative and conventional cancer treatments, but rather, how this varied between publications and over time. I am interested in how specific

publications used particular discursive practices to construct a report on a particular event.

4.4 Targeting audiences

The target or commodity audience is the most important factor for a producer of mass media. Publications are focused on targeting their products to a market of buyers (Hiebert & Gibbons, 2000:118). Content is manufactured as a product to be sold, which therefore has to appeal to the desires of the consumers. Mass media not only sell their products to consumers, they sell their audience to advertisers. The audience is viewed as the most important commodity, a commodity that is priced according to its size, its quality, and the quality of the media content that creates the audience in the first place (Hiebert & Gibbons, 2000:118).

As the mass media has become more specialised (particularly in response to the emergence of the internet), audiences have become far more diverse (Heibert & Gibbons, 2000:119). The implication of this is that the media are differentially available; that is, their use depends on education, economic resources and access to technological knowledge. Specialised magazines are aimed at people with specific training, knowledge or interests and are generally more expensive (Heibert & Gibbons, 2000:119). The result is audience fragmentation and polarisation. Instead of groups becoming heterogeneous, one can see the emergence of polarised homogenous interest groups, far from the plurality sometimes associated with flexible specialisation. What results is the development of exclusive markets that cater to the needs of specific interest groups. Examples in New Zealand include *Healthily Options*, *Nexus*, *North & South*, *National Business Review* and so on. These publications are exclusively targeting particular groups with particular lifestyles and discursive practices.

On a smaller scale it is important to consider how audiences interpret material and how much resistance there is to the themes conveyed to the public by the mass media. Research completed at the Glasgow Media Group on audience reception found that although there are variations in audience readings of media reports, there are pervasive

common themes in the meanings conveyed to the public. It revealed that, although people may resist the dominant message of a report or article, it might still have the power to convey facts and to influence their ideas, assumptions and attitudes (Eldridge et al, 1997:162). These studies were topic-based examining issues like AIDS, sexual violence and explored people's understandings through group discussion. The research revealed that there is a clear connection between recurrent themes in news reporting and what is recalled, understood, and sometimes believed by audience groups. However, Eldridge et al do not exclusively promote the autonomy of media power; they incorporate the ability of people to resist dominant messages taking into account personal experiences as the source of motivations. This is how they explain their conceptualisation of media – audience interaction:

Thus it is possible to locate significant clusters of meaning and link these with the social and discursive positioning of the readers and their 'interpretative' communities. However, the 'interpretative communities are not coherent and sealed; they are crosscut by multiple and overlapping experiences...[however] those experiences may themselves be shaped by the media. Personal experience is not a media-free zone. (Eldridge et al, 1997:162)

Personal experience, political consciousness, and socio-demographic position can alter people's trust in, and reading of, specific press, television, and radio reports. However, the development of identity and experience are not unaffected by the media; and thus the media play an important role in the way in which people see themselves and locate themselves in relation to others.

4.5 Discursive practices in the Liam Williams-Holloway debate

As I have suggested in the previous discussion, boundary work is done discursively through the media. The purpose of the following analysis is to illustrate the process of boundary construction, maintenance and contestation using the Liam Williams-Holloway case as a contemporary example. What I will demonstrate is that through the discursive use of mechanisms such as 'science', 'nature', 'evidence', 'holism' and 'choice', these media reports construct differences between alternative and conventional medicine. By using these strategies to legitimise particular positions in relation to Liam's treatment,

these media reports contribute to the generation of these social categories. It is this ability to represent certain practices in a certain way, and normalise this representation, that makes the media so important in the construction of alternative and conventional medicine.

Boundary work is both discursive and concrete in terms of the methods that are put in place to regulate the existing boundaries between institutional forms. At the broadest level, this research is about discovering the 'black box' of how boundary work is done; the 'black box' in this case is the media. As this process is extremely complex, I will pursue this controversy over a young boy, his disease, potential alternative forms of treatment, and how this controversy gets played out in the mass media in New Zealand.

4.6 Context

The events leading up to this particular media debate are important in gaining an understanding of how the media debate developed. Due to the privacy policies of the Family Court, the media were not involved in Liam's 'story' until Brendan and Trena had already gone into hiding with Liam in January 1999. In most cases the media are banned from reporting on Family Court hearings with any information made public at the court's discretion, and after the affected parties have been heard. However, Judge Edward Blaikie of the Family Court in Dunedin allowed the Children, Young Persons and Their Families Agency (CYPFA) and the police to use the news media to publicise the search for Liam, in the hope that the public would provide information regarding the family's location (*New Zealand Herald*, 01/03/1999). Previously, on November 28th 1998, Liam had been taken into hospital by his parents with what was initially thought to be the mumps. It took ten days for Health care Otago's paediatric oncologist Dr Michael Sullivan, to confirm that Liam had neuroblastoma, a rare form of cancer that affects 6 to 12 New Zealand children each year. The parents organised alternative treatments for Liam that were to run in conjunction with his chemotherapy. Liam received two courses of chemotherapy, but on January 5, Dr Sullivan was told that the Holloways wanted no further chemotherapy treatment for Liam. This initiated a dispute between the Holloways and Health care Otago. Communication broke down and by late January 1999 the

Holloways had taken Liam into hiding in anticipation of legal action from authorities. It is at this point that the media picks up this public debate. I will analyse the media debate as it progresses over a one-year period, focusing on the discursive strategies of specific publications in the following stages:²⁶

★ The Chase:	Feb/March 1999
★ The Media Gag:	March/April 1999
★ The Courts Renege:	April/May 1999
★ Public Debate:	June/Sept 1999
★ Going ‘Exotic’:	Nov/Dec 1999
★ Resorting to Chemo:	Jan/Feb 2000

4.7 The chase - February/March 1999

This is the period when it was first made public that a family had gone into hiding in an effort to stop Health care Otago from giving chemotherapy to their child for treatment of neuroblastoma. Health care Otago had successfully won a court order undermining the rights of the Holloways in favour of Liam’s right to life protected under the Guardianship Act 1968 (see McDowell, 1998). The jurisdiction of this act is wide-ranging with a condition that wardship should be exercised with care and used only when the interests of the child require intervention. According to this act, children should only be made ward of court where medical personnel have reservations about the lack of consent for medical procedures on a child. Past court injunctions (i.e. *re J Ellis J*) concluded wardship should only be made where the child’s life or well-being is in serious jeopardy and there is no other reasonable medical or therapeutic treatment available (Webb & Treadwell, 1999). It also states that the parents should be kept fully and promptly informed of all legal and medical steps to be taken. The reason that this court decision was significant, and subsequently taken up by the media, is that in New Zealand, parents have the right to determine the upbringing of their child, established in the Guardianship Act 1968 (Webb

²⁶ For more detail on these particular stages and the media reports presented in this chapter see Appendix 4.

& Treadwell, 1999). However, recent judicial comment and policy/social changes have reflected, in respect of medical decision, that the right of a parent to consent is limited to decisions that are in the child's 'best interests'. Thus, in making Liam a ward of court, Health care Otago sparked heated public debate over a multiplicity of complex issues surrounding alternative and conventional cancer treatments, promoting numerous discursive struggles (played out within the media) attempting to consolidate, and in some cases contest, the boundaries between alternative and conventional medicine.

4.7.1 Medical 'experts' and government officials

From the very beginning of the media debate in late January 1999, it is immediately clear that there is a substantial difference in the approaches of the *Sunday Star Times* and *The Southland Times*.

Children, Young Persons and their Families Authority, acting chief social worker Mary Iwanek said Health care Otago had consulted local and international experts and agreed chemotherapy was the best treatment for Liam, despite a statement from his parents that the boy was happy and healthy and his tumour was reducing. (*Sunday Star Times* 14.2.99:1)

In the above excerpt from the *Sunday Star Times* we have an account that is based on the views of state-validated 'experts' on health and child welfare. The claims of these experts are legitimated by 'international experts', which is in itself an interesting concept. The medical profession is structured in such a way that a 'fact' is produced, if not through objectivity, through consensus, thus providing support for any decision or claim that is made by its practitioners (Dew 1998:119). The doctors interviewed emphasised the importance of establishing international consensus as a means of providing the patient with the best possible care. 'International experts' are projected in the media and by medical professionals as more 'objective' and advanced than local practitioners. Knowledge from 'international experts' is seen as superseding any local knowledge or practice (Coleman, 1998). We are invited by the media to picture 'international experts' not as people, but as the authority of knowledge or 'truth'. They are presented as objective observers, analysing 'facts' that are not biased by context. Ironically, New Zealand doctors and researchers are other countries' 'international experts'; our doctors

are the faceless ‘experts’ that other nations may cite to legitimate their local knowledge. By spreading decision-making and establishing consensus, the medical community disperses accountability, seemingly dissolving bias by decontextualising the process of decision-making. Baume (1998:128) argues that invariably consensus in biomedicine is about agreeing on what to agree on. Thus, ‘fact’ or validity becomes more a matter of the *process of agreeing* rather than discovering or refining. The role of the media is to normalise these agreements and truth claims through mass communication.

In the same way as medical ‘experts’ make decisions regarding the validity of particular practices, state ‘officials’ take action or make claims based on the information provided by the medical community. CYPFA representative, Mary Iwanek legitimates her organisation’s position by referring to both local and international medical ‘experts’. CYPFA does not have the knowledge to make an independent decision, and is therefore reliant on the medical community to communicate the type of action that should be taken. Although perceived as a powerful organisation, in cases where complex medical knowledge is needed to make a decision regarding state action, CYPFA is transformed into a mechanism enforcing the decisions made by the medical community. Thus, the fragmentation of bureaucracy (‘expert’ organisations with specific roles) does not necessitate autonomy; if anything, it necessitates reliance between fixtures. The medical community retains its influence, in that without medical ‘experts’, the Police, CYPFA and the courts have no basis for decision making. As stated earlier, the Guardianship Act 1968 states that wardship should only be made where there is no other *reasonable* medical or therapeutic treatment available (see Webb & Treadwell, 1999). However, the court consults medical experts regarding what should be legally considered a ‘reasonable treatment’, and thus, the medical community retains control over both the provision and enforcement of medical treatments. In this way, the medical community normalises its paradigm of health care, equipped with the resources to enforce this paradigm if deemed appropriate.

In the following excerpt we see the use of ‘experts’ and ‘officials’ to *promote* the Holloways’ actions. *The Southland Times* utilises other high profile ‘experts’ Robyn

Stent (Health and Disability Commissioner) and Tukoroirangi Morgan (Member of Parliament) to develop a different approach to the actions of the parents:

Tukoroirangi Morgan said the parents should be commended not "hunted down like dogs." It was criminal to create a witch-hunt for loving parents, who only wished the best for their child, he said. "This couple have left their farm to save Liam's life, they should be applauded, not publicly pursued like criminals." (*The Southland Times* 15.2.99:1)

Health and Disability Commissioner Robyn Stent says; "These parents are doing what they believe is best for Liam and as guardians, CYPFA must look at all the options in the same way." (*The Southland Times* 15.2.99:1)

The views of these public figures are used in these media statements to back up the notion of 'parental rights' and 'individual choice' in cancer treatment. It came as a surprise to government authorities that Robyn Stent supported the actions of the Holloways, resulting in harsh criticism of her position as the debate develops. Despite this, the support of certain government officials such as Morgan and Stent consolidates the developing counter discourse promoting support of actions of the Holloways in the name of 'freedom of choice'. This discursive practice begins to develop a picture of 'alternative' medicine as promoting agency, empowerment, choice and individual rights, discursively separating alternative medicine from conventional medicine. *The Southland Times* offers the public a legitimate position from which to stand against the state and the medical community, validated by an idealised representation of alternative practices.

The approach in *The Southland Times* is based on 'character building'; demonstrating the 'purity' of the Holloways' actions, and alternative practices. Over this initial period in the controversy *The Southland Times* focuses on separating the Holloways from any preconceptions that the public may have about "alternative lifestylers" or "hippy-types". The Holloways are presented as pro-establishment, with reports stressing that they do not simply want to avoid conventional treatment; they just want the most 'effective' treatment for Liam. The strength of this image is that the Holloways are represented as typical middle-class, white, hardworking, family-centred Southlanders. Already strongly supported by friends and family, *The Southland Times* is strategically focusing on this as a heart-felt 'story' or saga, rather than a larger debate over the implications of the Holloways' actions for health provision in New Zealand society. *The Southland Times* is

offering a position for the hometown audience that does not engage with the wider political debates surrounding the case. It offers a dialogue that promotes concern for the local family, their small child and their fight to save him. Thus, *The Southland Times* targets local support for one of their 'own' families, rather than unemotionally and rationally debating the larger social implications as other publications do at that time. They provide an ongoing dialogue that invites the locals to provide uncritical support for the Holloways.

4.7.2 Medical statistics

While the individual man is an insoluble puzzle, in the aggregate he becomes a mathematical certainty. You can, for example, never foretell what any man will do, but you can say with precision what an average number will be up to. (Sherlock Holmes to Dr. Watson in *The Sign of Four*, Doyle 1987:232)

A very powerful and important mechanism used by the medical community, and indeed the media, is that of statistics. Statistics provided the primary means for the media in constructing positions in support of the medical community. These 'certainties' (or indeed, as Sherlock Holmes points out, uncertainties) were used within reports to legitimate the claims of the medical community and the actions of the state. These 'certainties' became extremely influential in the consolidation of discursive boundaries between alternative and conventional medicine within the media debate. For example, *The Press* focuses on 'expert' opinions, consulting Christchurch Paediatric Oncologist Rob Corbett for the 'official statistics' and survival possibilities for Liam. They report as follows:

Christchurch Hospital paediatric oncologist Rob Corbett said he was sympathetic to the plight of the parents, but every day Liam stayed away from his chemotherapy was cutting his chance of remission. Children in similar situations had an 80 per cent survival rate. In Liam's case, he had a 50 per cent chance. It's a 50 per cent chance (with chemotherapy) or he dies. I have lost enough patients to neuroblastoma to know," he said. "Children have the right over and above what their parents think." (*The Press* 16.2.99:4)

This is an excellent example of how statistics can be used to project certainty, to validate claims, when in fact the situation is uncertain even in the eyes of the medical community. Rob Corbett goes further to suggest that without chemotherapy, Liam will die, presenting

only two ‘polarised’ possible scenarios. At the same time as clearly stating the terminal nature of Liam’s condition without chemotherapy, Rob Corbett does not explain that there is a 50% chance that chemotherapy would kill Liam, or at least lower his quality of life while he dies. The inclusion of facts on other types of cancer is both significant (for us as sociologists) and insignificant (for those seeking treatment). These statistics are insignificant in Liam’s case in that it is accepted within the medical community that ‘cancer’ is in fact a large number of different diseases that respond very differently to treatment. What links them is that all forms of cancer involve out-of-control growth and spread of abnormal cells. Thus, the statistics on other types of cancer are irrelevant to Liam’s chance of survival. It is the equivalent of explaining the prognosis of Parkinson’s for a patient with Multiple Sclerosis, so why discuss these seemingly irrelevant statistics? It is because these statistics redirect attention away from neuroblastoma, and testify to the successful treatment of similar conditions in conventional medicine. This is effectively a defence mechanism against the charge of ineffectuality in relation to specific conditions.

As I shall illustrate in Chapter 5, there is a distinct lack of certainty within the medical community in relation to the usefulness of statistics for individual patients. Despite this uncertainty, the media and the medical community present outcomes and prognosis authoritatively. Through the media, the medical community attempt to construct certainty and associate conventional medicine with known outcomes and alternative medicine with uncertainty and risk. This is a rhetorical method of consolidating conventional medicine as secure, established and superior. The use of the term ‘folk’ is also significant as it constructs alternative practitioners as common (the actual definition of the word), not unique or having special characteristics. It is also informal, separating alternative practitioners from those who are viewed as ‘professionals’ or ‘practitioners’, denying them status as skilled and professional. By referring to alternative practitioners as ‘folk’, ‘quacks’, ‘naive’, these medical practitioners, aided by the media, normalise this image. These words are a reflection of the discursive practices of the medical community that subtly (and sometimes not so subtly) contest the legitimacy of alternative practices.

4.7.3 Freedom of choice and anecdotal evidence

Differences in the use of language add to the tensions between medicine and the media. Certain words routinely used by scientists have different meanings for lay readers. The word "evidence"...has multiple meanings. Biostatisticians refer to evidence as a statistical concept; biomedical readers may define the critical experiment as evidence; the lay person, including journalists, accept as credible evidence anecdotal information or individual cases (Nelkin, 1996:1602).

It is evident at this stage in the debate that the *Sunday Star Times*, and to a certain degree *The Press*, are developing consistent representations of 'alternative' and 'conventional' medicine. Through the use of language such as 'evidence', 'consensus', the 'expert', they contest the choices made by the Holloways, the legitimacy of alternative cancer treatments, and consolidate the position of conventional medicine. What develops is a continually evolving discursive illustration of the Holloways' experience, using those mechanisms that underpin the biomedical model. These publications are involved in the process of providing reports that draw on certain discourses that support the needs of a particular audience. This is particularly visible in the contrasting approaches of the *Sunday Star Times* and *The Southland Times*.

While the *Sunday Star Times* attempts to uncover the 'facts' or 'efficacy' of the various treatment options, and survival rates and so on through consultation with the medical community, *The Southland Times* provides an ongoing rhetoric on the thoughts of the Holloways' friends and family and the Holloways' cat.

Ever since that day, brother and sister neighbours Alison and Bruce Hebbard have fed and watered Ben, the ginger Moggie, and speculated on when the family might be home. "The cat certainly missed them when they were gone but Brendan told us he hoped to get back once a month. (*The Southland Times* 13.2.99:3)

Distancing themselves from the ethical and political implications of the controversy, this local paper decides to provide insight into the problems experienced by the Holloways' cat. This seems to be more comfortable for the audience than becoming involved in a complex debate over the efficacy of the treatments and the ethics of the Holloways' actions. An important factor here is that the readers of this particular newspaper are a predominantly rural, farming community in which the Holloways are well-liked locals.

Further, it would be safe to assume that tightly knit rural communities are undoubtedly less interested in efficacy and the political implications than the experience of the people involved. Patrick Mott (1991) quotes a small-town newspaper editor, arguing that these papers are highly sensitive to the needs of the community and have an increased tendency to reproduce the attitudes of their immediate community:

...the smaller the paper is, the closer it is to the community. Because of the intimacy that you have with your readers ... I sometimes wonder if you don't have more of an opportunity to see the effects of what you write up close and sometimes think about it a little more...I wonder if somebody at a major metropolitan paper would be as sensitive to the potential impact of the story. If our readers get mad, we know it. (Mott, 1991:4)

By avoiding dealing with issues of efficacy, ethics, evidence and so on, *The Southland Times* legitimates a position of unconditional support for the Holloways. By excluding claims made by certain actors regarding the 'quackery of alternative medicine' and the 'death sentence of neuroblastoma without chemotherapy', they provide no information that might question this support. Ericson (1998:3-4) states that journalists tell their story within a narrative framework that has salience in popular reality. He argues that while a journalist might work hard to establish a frame by which to view a particular event, once established, potentially relevant facts are routinely ignored in order to sustain this view. Thus, journalist(s) for *The Southland Times* have established a 'frame' which feeds into the various needs of the audience, a frame which they will not disrupt with the inclusion of other 'facts' relevant to the case. In this case, the audience is very specific, with specific needs and discursive practices which the newspaper can articulate. As the audience gets larger, the reporting becomes less specific and more inclusive, with a focus on targeting a shared need between audiences, but not inclusive of all audiences. This may mean targeting locals (*The Southland Times*), those supportive of biomedicine (*Sunday Star Times*), those interested in the plight of the family (*New Idea*), those interested in the effectiveness of natural remedies (*Health Options*), those supporting a conspiracy theory (*Nexus*) or those supportive of alternative medicine (*Holmes*) and the list goes on. Each angle utilises specific discursive practices and mechanisms to validate or invalidate practices, decisions and treatments. Each is involved in 'boundary work', employing discursive strategies that generate a certain representation of alternative and conventional medicine.

As the media debate develops, it becomes evident that various publications present directly opposing positions. In the next excerpt *The Southland Times* plays on the medical community's accusation of 'parental neglect' by reversing the argument through an interview with the parents of a child that died after receiving chemotherapy for his cancer. Citing misinformation from the medical community, and substandard treatment outcomes, the following report vividly illustrates what statistics attempt to rationalise; a large proportion of children with neuroblastoma die quickly and painfully, despite being given the 'best treatment' available. This inserts a previously unheard voice within conventional treatment - the experience and pain of those whom it failed:

Ricky King died of cancer on September 18, 1990. He was three and a half. Debbie and Ray King, of Invercargill, will always remember watching helplessly as their little boy faded away and can empathise with what the parents of Liam Williams-Holloway are going through. Mrs King said they opted for orthodox cancer treatment in chemotherapy, but with greater knowledge of alternative therapies now can understand what Liam's parents are doing. "If we'd been told then that Ricky was unlikely to see his first birthday, I would have packed up and done exactly what they have done. "I would have gone to the clinic in Mexico if I thought it would help. "You have to do the best you think for your child, with love," (*The Southland Times* 20.2.99:3)

Anecdote is used powerfully here in that it humanises the treatment of cancer, a process that is rationalised by the medical profession to vindicate treatment decisions. The above anecdote plays on the notion of 'parental responsibility' but argues the reverse in support of the Holloways' actions. This article questions what one considers 'responsible' and what constitutes an effective treatment. As boundaries are contested and treatments become legitimated or suspect, what is considered ethical, responsible or neglectful changes.

Journalistic efforts to enhance audience appeal may violate scientific norms. To create a human-interest angle, journalists look for personal stories and individual cases, though this may distort research that has meaning only in a broader statistical context. (Nelkin, 1996:1602)

As Nelkin states, anecdote is powerful because it is both interesting, emotive and can be used to contest broad claims. Using anecdote contrasts the ongoing use of statistics produced out of evidence-based medicine in other publications, playing on the tension

between anecdote and clinical-trials, story and symptom. Anecdote functions to personalise treatment, to demonstrate the aspects of treatment (i.e. process and possible outcomes) that statistics tend to overlook. Many alternative practitioners primarily legitimise their practices with anecdote, providing few parameters other than the experiences of previous clientele. The use of anecdote by *The Southland Times* is testimony to what many see as the limitations of conventional treatment, demonstrating that these decisions are not merely a matter of statistics, they involve suffering and regret even if what the medical ‘experts’ claim to be the best choice is taken. This approach also has the effect of seemingly ‘uncovering’ what the authorities or the medical community hide from the public. The idea of a ‘cover up’ that maintains the dominance of the medical community promotes the kind of conspiracy theories promoted in publications like *Nexus* magazine. *Nexus*’ subtitle “conspiracies, behind the news, health UFOs and Future Science” illustrates the agenda of its editors. They seek to uncover conspiracies, misinformation and corporate agendas, protecting humanity by providing “hard-to-get information” in a way that everybody can understand. What is of significance for this research is that the *Nexus* writers use anecdote to contest the ‘logic’ and ‘statistics’ of biomedicine, to question established authority and justify suspicion towards government organisations. The ‘experts’ that provide information for this publication are the ‘quacks’ for the *Sunday Star Times*. This is a report in *Nexus* from an article on a new cancer therapy:

Three years ago, my son, then 17, developed a giant cell tumour of the left tibia, a tumour that grew so rapidly that it destroyed much of the top part of the bone... [after discussing the traumatic conventional therapies he received he continues] ...Gaston Naessens, “the Galileo of the microscope”, went on to produce a product which reverses the disease process, allowing the body to return to a normal state. This...highlights the ruthlessness of the medico-pharmaceutical conglomerate and the lengths they will go to suppress anything and everything that threatens their profits. (*Nexus* Feb/Mar 2000:28)

Pharmaceutical companies and the medical community are the main targets for *Nexus* magazine, relying heavily on anecdote (often including graphic pictures) to convey their suspicions towards particular organisations. Generally this style of reporting remains in these ‘fringe’ publications, and it seems clear that *The Southland Times* strategically uses

this reporting style to promote support for the Holloways' case. *Health Options* continues this pattern in the following piece:

After an active life, including 24 years in the New Zealand Police Force, Rex Major was diagnosed with malignant cancer at age 62 years. Instead of conventional treatment (chemotherapy, radiation and the like), with a positive attitude, Rex choose to go to the alternative Hoxsey Clinic in Mexico. Six months later medical tests confirmed there were no signs of tumour or other abnormalities. Six years later, we ask Rex to give us an update. (*Healthy Options*, June 2000:33)

Anecdote is a major mechanism by which certain groups and publications validate and promote alternative treatments, as one can see in these two publications. By using first names, faces and showing the symptoms of cancer, this type of reporting conveys information that the medical profession disposes of, or otherwise conceals (consciously or unconsciously). Although it is rather extreme to suggest a conspiracy, as these publications tend to do, these reports illustrate the medical community's control over the dissemination of information about available or existing treatments. When presented with anecdote, the audience can engage in diagnosis and decision-making. This cuts across the information boundary that the medical community sustains through the use of abstract statistics and procedures.

Another consideration is that statistics limit the possibility of reflection on doctor-patient interaction, as treatment is dominated by systematic treatment by percentages, rather than a negotiated process of healing between practitioner, treatment and the patient. However, anecdote is also limited in that it offers very specific information that may or may not be applicable to other consumers of health care. One could find an anecdote to back up any claim, which provides little security for the patient. Despite their respective limitations, both statistics and anecdote are important mechanisms of legitimation used by advocates of conventional and alternative medicine. The media uses these methods of presenting information to offer 'validated' positions to different audiences.

4.7.4 Efficacy and parental responsibility

A weekly, national publication, the *Sunday Star Times* approached Liam's case with an emphasis on the claims of conventional medicine. A weekly publication, the paper has

more emphasis on in-depth reporting, and is less focused on the details of the case than on the political issues surrounding specific debates. At this stage in the media debate, the *Sunday Star Times* drew their information almost exclusively from medical ‘experts’, providing ongoing coverage of the medical community’s attitudes towards the Holloways’ actions. They provide little reflection on the specific alternative treatments being used, nor their efficacy. The *Sunday Star Times* merely states the ‘facts’ of the case according to the medical community. This was how the *Sunday Star Times* presented the ‘common fact’ that Liam would die in three to six months without chemotherapy treatment as seen in the following quote:

Doctors have said Liam has a 50-50 chance of survival with chemotherapy treatment, but would live just three to six months without intervention. Liam had had just two of seven 10-day chemotherapy cycles before his parents left Dunedin. (*Sunday Star Times* 14/02/1999:4)

This is an important fact to consider in relation to constructing a position in support of conventional medicine. In retrospect, we know that despite withdrawing from chemotherapy, Liam did not die within six months. Further, the interviews I conducted suggested that doctors are well aware of many cases of children living much longer than this period of time without chemotherapy. However, this statement of ‘fact’ (the average survival rate of all neuroblastoma patients at a similar stage, age, and with similar symptoms as Liam), assists the construction of chemotherapy as the only option. By constructing certainty in cancer and cancer treatment, this ‘fact’ legitimates positions opposing the Holloways’ actions.

In response to *The Southland Times*’s use of anecdote, the *Sunday Star Times* provides an anecdote in support of evidence-based medicine. It presents the story of a father from South Canterbury who tells about the use of chemotherapy to cure neuroblastoma in his son. The ‘story’ is used as a very emotive and successful tool for presented chemotherapy as the ‘effective’ form of cancer treatment:

Steve Pullman has just one thing to say to Brendan Holloway and Trena Williams: "Get your son back to hospital." The south Canterbury father knows what he's talking about. His son Jeff Cameron was diagnosed with neuroblastoma eight years ago when he was 11. The chemotherapy treatment to rid his brain and spine of the tumours wasn't easy, but

Pullman says "at least Jeff's alive". "I understand what they're going through, but that little boy needs all the chances he can get. It's hard, but that's the way it is." (*Sunday Star Times* 14/02/1999:4)

This story offers an alternative view of decision-making and misinformation than that presented earlier by *The Southland Times*. Utilising the experience of Steve Pullman, the Holloways are presented as naive and misinformed about the effectiveness of conventional cancer treatments. Anecdote becomes a tool used to back up the 'success' of conventional medicine, just as it was used to represent its failures. Thus, although conventional medicine bases its decisions on evidence-based medicine, anecdote becomes an important mechanism for people to trust these statistics. Hence, there is an intermingling of mechanisms of legitimation; a continual process of utilising aspects of the 'other' to define one's own position. As the public debate reaches a peak, the Family Court prepare to make a decision that would further aggravate this controversy.

4.8 The media gag - March/April 1999

The extensive interest in the case produced by the media coverage prompted Dunedin lawyer, Alistair Logan, the court-appointed counsel for Liam, to try to stop media coverage. Judge Blaikie agreed because "it may be a contributing factor in the parents' decision to remain in hiding" (*New Zealand Herald* 01/03/1999:1), issuing an order effectively banning further reporting of the search for Liam and his parents, and identification of people involved in his treatment, care or custody. The implication of this order was that Liam could be seized and forced back into chemotherapy under a cloak of complete secrecy. This prompted lawyers for media organisations go to court asking for the gagging order be set aside (*New Zealand Herald* 01/03/1999).

4.8.1 Freedom of speech and a media frenzy

The inherent problem in, or perhaps result of, of attempting to gag the media, recognised only too late by the Family Court, is that it enhances the controversy, extending it past cancer treatment to questions of civil rights, freedom of choice and democracy. As one

would expect, in the following excerpt *The Southland Times* condemns the media gag, positioning itself as an agent of 'freedom of choice':

Are all our rights and freedoms this illusionary? Having used the media to publish photos of Liam's parents, extolling the public to help in their pursuit, suddenly Liam's privacy is quoted as paramount, and the media ban imposed. Could it be that the potential images of a child forcibly torn from his anguished parents would arouse even more intense public sympathy? There will be nation-wide carol-light vigils tomorrow in protest of this media ban, and in support of our rights as parents to choose what is best for our children. Light a candle for Liam. Stand up and let them see we are still a democracy. (*The Southland Times* 18/03/1999:6)

The media ban changes the reporting of *The Southland Times*, providing it with a context for identification with Liam's parents around issues of personal freedom and civil rights without needing to enter the debate surrounding the efficacy of alternative cancer treatments. The media ban draws the focus away from the actions of the Holloways to the totalitarianism of the state. The candlelight vigil is directed at involving the public in the fight for a right cause, projecting the Holloways as visionaries and martyrs. By focusing on the actions of the state, rather than the actions of the Holloways *The Southland Times* does not have to address issues of neglect, efficacy, evidence or ethics as the public interest is centred on regaining the right to access information. Both *The Southland Times* and the Holloways use these discursive resources - 'freedom of speech', 'rights as citizens' - to contest the discursive practices of conventional medicine. By picking up on these wider social concerns, their case becomes symbolic of social breakdown, with people less focused on the actual details than the political implications of the actions and decisions of government and state authorities. The case becomes less focused on 'what will happen to this family', and more focused on 'how will this affect *my family*'.

As the ban is contested in court and appealed by the mass media, *The Southland Times* continue to act as a medium through which the Holloways communicate with the public. Publishing letters sent to the paper from the Holloways who are in hiding, *The Southland Times* casts itself as the voice for the Holloways, with an exclusive story when the Holloways decide to speak. This is an excerpt from a letter from the Holloways:

Hello to you all. Gosh, it's mid-March already and we're still not home. We'll probably be a while yet too. I guess we'll miss the Central Otago autumn colours this year. We are all

pretty good but a bit stressed from time to time. Liam's happy and healthy and continues to make good progress so on we go and here we remain. Molly's cool too but wants to come home. We all do. She misses her new school at Hawea but does schoolwork at home here. All in all, we're not too bad. Our new baby is only nine weeks away. We reiterate what we said earlier that given Liam's legal status and the uncompromising approach by Health care Otago, we have no option but to remain in hiding and continue his treatment. Our only hope for a happy outcome is to present Liam as a cured boy...(*The Southland Times* 20/3/99:1)

This letter is an emotive and very important mechanism by which the Holloways express their view of debate over alternative cancer treatments. They allow the public into the simple aspects of their life, their feelings and state of mind. Health care Otago is presented as authoritarian and unbending. They are loving, active parents, doing the best for their child. The report is structured like a letter to a friend or family member in simple and friendly language that takes the form of a story despite the strong political message. The Holloways are presented as simple but rational, controversial but compassionate, neither showing direct anger towards the medical authorities, nor complete faith in alternative treatments.

The media gag functions to reposition the *Sunday Star Times* within the debate. They respond to this event with a series of articles that are supportive of the Holloway family. They cover the "vigil for Liam", focusing on the dangers of suppressing information and the importance of media coverage for human rights. Distancing itself from its previously critical stance, the *Sunday Star Times* moves quickly to support the vigil over the rights of the public to be involved. They report:

The theme song for the rally is *A Child is Born*. A minute's silence is also planned at every venue. Battson said volunteers were being sought to help organise demonstrations in each area. "This affects everyone - parents, grandparents, aunts and uncles. It's all about wanting to make a change". "We want to have people from Kaitaia to Ashburton to Temuka involved." (*Sunday Star Times* 07/03/1999:2)

The media ban influenced even those publications previously highly critical of the Holloways to revise their angle, with a break in the critical commentaries that were so frequent in the *Sunday Star Times* reporting up to this point. The important factor here was that it was no longer a question of the validity of the status quo, or the dominance of

science and biomedicine, rather it was a challenge to democracy and the public's right to information.

Focusing on the state's position and recommendations regarding Liam's treatment, *The Press* develops the approach of the medical community by providing a scientific explanation of what neuroblastoma actually is and the chances of treatment according to the medical community. They interview Professor Abbot who presents his anger at the irresponsibility of the parents and the ethics involved in the decisions over treatment of children. *The Press* constructs a position based on scientific method and knowledge, established regulations and the experience of the medical community, promoting the ability of conventional medicine to understand, explain and treat neuroblastoma:

Once the most resistant of its group to modern treatments, neuroblastoma develops as a solid tumour from nerve tissue in the adrenal gland, appearing as an abdominal swelling before spreading to the marrow and bones. Small tumours in young children can be cured by complete surgical removal, while very young children respond well to moderate treatment even if the disease is widespread. Older children with large tumours or widespread neuroblastoma are treated with intensive chemotherapy, surgery, or radiation. The good news, according to clinicians, is that a cancer which was a death sentence 20 years ago has been steadily retreating. Today, a child's chances of recovery are about 50 per cent. (*The Press* 20.2.99:4)

This clearly presents the advances made in biomedicine as spectacular with the connotation that without conventional medicine cancer is a death sentence. The implication here is that the parents are choosing to give their son a "death sentence" by refusing treatment. Professor Abbott continues with his opinion of parental responsibility and ethics:

I am expected as a senior paediatrician to front up with information which can be challenged by parents. If the treatment is new or it changes, we are faced with a series of very strict requirements before any new or altered treatment is given to the child. This process involves departmental approval, international peer review, and approval by ethical committees. Alternative health practitioners who may have the best of motives are not subjected to the same intense personal, ethical, and peer demands. To simply say that their techniques work after two or three cases in Peru does not subject these methods to the same level of scrutiny. "Does society want people to behave professionally? This child and many others have the right to appropriate approved treatment which has been scrutinised and reviewed. As a society, have parents the right to overrule a child's right to this treatment? (*The Press* 20.2.99:4)

Professor Abbott's focus on accountability, professionalism, evidence and professional consensus, legitimates his position. Using description of the tumour (promoting his personal experience with this disease), knowledge of its development, knowledge of influencing variables and probable outcomes, Professor Abbott uses networks of medical knowledge to present his position as based on 'fact'. Using descriptive techniques and statistics, combined with emotive language such as "death sentence" he develops a very persuasive discourse surrounding a 'neuroblastoma' case. Separating himself from Liam's case, he does not engage in explicitly predicting Liam's likelihood of survival, stating "today a child's chances of recovery are about 50 percent". This rhetorical strategy avoids directly engaging in the debate, but consolidates the medical discourse that "chemo is Liam's only hope". He projects the medical system as protecting the patients, with various approval networks and ethics committees that prevent charlatans from deceiving the public. Thus, he is both constructing himself as the provider of 'fact', unaffected by the particular context, but also the protector of humanity, fighting for the rights of those not able to make their own decision. He uses his own experience to describe the progression and treatment of neuroblastoma, but debunks the usefulness of anecdotal evidence for legitimating alternative cancer treatments. Professor Abbott constructs individual rights as directly related to validated treatments, and thus, the 'child's right' is presented as the right to receive chemotherapy.

4.8.2 "Liam and the limits of parents' right to choose" *Listener 22.5.99*

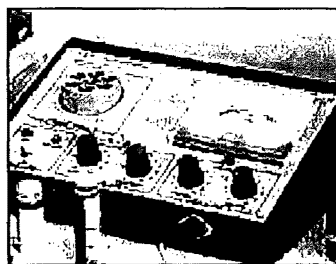


Figure 4.1: The quantum booster machine (*The New Zealand Herald*)

As can be expected, when a controversy has developed over a significant period of time, with multiple, seemingly irreconcilable arguments, mainstream magazines such as the *Listener* provide in-depth reports into “the debate so far”. These magazine articles are very different from newspaper reports as they work on the notion that people know the basic facts of the case, and focus on developing, in this case, an articulate, in-depth commentary. Moving away from ‘factual’ reporting, the *Listener* provides a well-constructed, persuasive, articulate discussion that is both sympathetic to the family, and ‘rational’ regarding the political implications. Bruce Ansley, the author of the article, relies heavily on style and intelligent use of language to project fairness and empathy for the ‘weak’, while still maintaining support for conventional medicine. He positions himself with the public, and for the patients, persuasively consolidating a position that has proved popular within this controversy to date – support for evidenced-based medicine mixed with empathy for the Holloways:

It’s the way we live: mum and dad know best. Doctors, lawyers, social workers rewrite the maxim everyday. But we like to think it’s true and last week, to everyone’s delight save a few, mum and dad came through. (*Listener* 22.5.99:18)

Beginning the discussion with an obviously tenuous support for Brendan and Trena, Ansley cleverly uses the voice of the child when sympathetic to the Holloways’ cause – “mum and dad know best”. This suggests that this is a naïve and immature statement, and like many things children say, cute but unrealistic. He focuses initially on the plight of Brendan and Trena, and Liam’s “uncommon and dangerous form of cancer”, as if there is a form of cancer that is not dangerous:

[They] spent four months on the run, hiding from a state intent on taking away what most believed was their right to choose the best for their four-year-old son Liam...Doctors *prescribed* chemotherapy as his best chance. His parents wanted alternative treatment (*Listener* 22.5.99:18).

The word ‘prescribed’ has significance in that it gives legitimacy to that statement. Doctors did not just suggest chemotherapy, they ‘prescribed’ chemotherapy, whereas the parents ‘wanted’ or ‘chose’ alternative treatment. This dehumanises the decision and takes the accountability away from the doctors, making it mechanical and technical. The prescription pad becomes a tool by which doctors both control and legitimate

medications. There is a developing bias towards the superiority of biomedicine that emerges very early in this article.

With a court guardianship order lifted, the family were able to emerge from their far north refuge triumphant, claiming Liam's health was better than it would have been with chemotherapy. The growth on his head had all but disappeared, they said, thanks to an electrical vibrator, looking rather like a cheap battery charger, which they called a "quantum booster". (*Listener* 22.5.99:18)

The description of the quantum booster machine denigrates the machine and plays on the sceptical discourse of alternative medicine as pseudo-science. The assumption is that if these machines are effective they will look effective, persuasive of legitimacy. I would suggest that Ansley would possibly not recognise the value of many tools used within conventional medicine, possibly even mistaking them for household items. However, clearly both the desired and achieved result is not an accurate assessment of the treatment, rather, a collection of observations that can be used rhetorically to develop a sceptical discourse of alternative cancer treatments. :

Holloway and Williams have told their story on Holmes and in a national newspaper. They have negotiated fees with women's magazines. Here is their doctors' story, not previously told. (*Listener* 22.5.99:18)

Developing out of the suggestion that the Holloways want to make a political statement, this excerpt represents the Holloways as 'moneygrubbers', wanting to make the most out of their 'adventure'. Ansley omits that without public support Liam would have been forced to undergo chemotherapy, and without public donations he wouldn't have been able to undergo alternative treatment. Further Ansley states that Mike Sullivan, Liam's doctor never had his say, and "this is his story". Using the same technique as was used when the media first approached the Holloways, Sullivan's story is presented as the 'truth' that never emerged because of the dominance of the Holloways' perspective. Each journalist seeks to present to present his or her information as the 'untold' and neglected story:

Sullivan also has a PhD in molecular biology, He remained sceptical about the electrical "quantum booster" which Liam's parents found mentioned in a book called *Suppressed Inventions*. (*Listener* 22.5.99:19)

This presents Sullivan as an expert in judging the efficacy of the quantum booster because he has a PhD in molecular biology. Although he may have studied the molecular structure of fungi, because of his qualification, his opinion becomes qualified. Interestingly, the quantum booster machine is in fact not mentioned in the book *Suppressed Inventions* as he claims. The machine discussed in this text is the Rife machine, developed by Royal Raymond Rife, who devoted most of his career to developing the microscope. Thus, it is clear that Sullivan has little idea of which treatments the Holloways are using, and even less of an idea of how they work. Despite this, and this has been an ongoing theme within this research, Sullivan, and medical practitioners in general both feel and are treated as qualified to judge treatments such as these. Sullivan provides an extremely vague response when asked why it had not been tested or used within conventional medicine:

If I thought it would work, I'd use it tomorrow. But I'm not sure what its inventor means. I'd like to see the evidence. I could not ethically recommend it unless it was tested. (Listener 22.5.99:19)

The key idea here is that explanation and understanding supersedes benefit within the current medical system. The rhetoric of “I would use it if it worked” but “I could not use it unless it was tested” demonstrates this priority, as a treatment is not seen to work (even if practitioners know by experience that it does), until it has been scientifically proven. Testing in this case means a randomised controlled trial, excluding other methods of assessing the validity of a particular practice. This is reinforced with Sullivan’s claim that he cannot recommend it unless he is satisfied that it is scientifically tested.

I can't determine what will happen to Liam unless I give him a full reassessment. There's a small chance that he might have been cured with the two cycles of chemotherapy he has already been given. But if he is not cured, it will reoccur and progress. (Listener 22.5.99:19)

Thus, he can not determine what will happen to Liam, but despite this, in the next sentence, Sullivan claims that he can determine what will happen – a direct contradiction. Despite the possibility of other factors such as remission or placebo, he claims that any improvement is because of the chemotherapy already received. This directly contests the

claim of the Holloways that it was the alternative treatments that were responsible for the improvement.

Nowhere has it been shown that alternative treatments have any efficacy in the treatment of neuroblastoma. This is a serious impasse in New Zealand. Alternative therapists can offer anything. But I must practise by the highest standards...They are frightened vulnerable people and they are being offered false hope. How can we accept this gross situation? Where's the information? The informed consent? (*Listener* 22.5.99:19)

This moves the accusations away from the parents and towards alternative practitioners who are presented as offering false hope to the parents. Alternative practitioners are projected as harming Liam by offering 'untested' treatment to the parents. The parents are constructed as dupes, vulnerable people, subjected to the claims of those who offer hope. Ansley cleverly positions himself with those sympathetic to the parents, while focusing on developing Sullivan's story as not represented in the debate, projecting this interview as uncovering new and important information on the effectiveness of cancer treatments. This is a strategy by which conventional medicine can be seen as underestimated and unfairly silenced in light of unfounded claims from alternative modalities. This report focused on the primacy of scientific testing in assessing the validity of cancer treatment, placing alternative treatments in opposition to their 'scientifically tested' conventional counterparts. Ansley captures and reproduces Sullivan's 'boundary work', using the consultant's rhetoric regarding qualifications, professionalism, standards, ethics and science to validate his own cynicism towards alternative medicine.

4.9 The courts renege - April/May 1999

In acknowledgement that media attention was merely heightened with the media ban, the High Court in Dunedin reversed the decision of the Family Court to ban media coverage of Liam. In what was a benchmark move, Justices Panckhurst and Chisholm in the High Court at Dunedin made a precedent-setting decision. They found that while there was a proper basis for making the suppression order, its terms were "too broad and were not as clear as they could be" (*The Daily News*, 06/04/1999:6). One month later, on May 6th 1999, all court orders related to Liam's treatment and guardianship were discharged in the

Dunedin Family Court, allowing the family to appear publicly (*New Zealand Press Association*, 06/05/1999).

4.9.1 Focusing on ‘story’

With the media now free to report updates on the Holloway case, and a public eager to hear about the Holloways’ survival ‘on the run’, the *Sunday Star Times* centres its reporting on the Holloways’ ‘story’. Despite the publication’s previous overt support for biomedicine, and the critical nature of the previous reports on the case, maintaining a certain degree of voyeurism seems crucial when dealing with a story of this magnitude. Hence, the *Sunday Star Times* interviews the Holloways and presents a number of articles covering their ordeal on the run, sympathetic to them as parents.

The roads were wet and dangerous and the children were hunkered down in the back seat. "We were really tired and the whole thing about the raid and it being on the news had freaked us out," says Holloway. "We'd had a really long day and were taking turns to drive through the night. We were really conscious of not leaving a trail behind us, not wanting to be on the videos at gas stations and things like that. The family spent a week in town, a week on a sheep farm, another week near the beach, then returned to town. (*Sunday Star Times* 9.5.99:1)

This style of report, descriptive rather than critical, represents a major shift in the reporting style of the *Sunday Star Times*. Moving momentarily away from their scepticism towards alternative medicine and criticism of the Holloways’ actions, the paper presents the opportunity for the audience to be involved, to be informed of the highs and lows of the Holloways’ adventure. However, alongside these articles, the *Sunday Star Times* maintains its alliance with biomedicine by placing in each publication a second account of the Holloways’ case: a critical review. For example, a report titled “Quantum Booster Can’t Cure, Says Specialist” follows the page after the previous except:

Otago Health care paediatric oncologist Dr Mike Sullivan said it was highly unlikely the machine, used to treat Liam while he was on the run, could cure the killer disease...Sullivan said the tumour wasn't that big when Liam was taken to hospital last year, and after two chemotherapy treatments it had shrunk noticeably by the time the family went into hiding. "And we would expect it to continue to decrease because of the chemo. It was no chicken soup he was getting, it was intense stuff. People are out to exaggerate the efficacy of what they've done to justify their actions, but we simply don't

know." Sullivan said because Liam looked well did not mean his cancer was gone...(Sunday Star Times 09/05/1999:5)

The *Sunday Star Times* carefully balances coverage of the 'brave resistance' of the parents with the concerns of the doctors and their claims about conventional treatment. They continually consolidate the 'power' of conventional medicine with language usage like "no chicken soup" as if the more invasive and toxic, the more effective the treatment. This enables the *Sunday Star Times* to both continue its boundary work, consolidating the efficacy, professionalism and superiority of conventional medicine, and cover the Holloway's fascinating 'adventure' which no doubt even audiences sceptical towards alternative medicine would like to read.

Other newspapers adopted a less critical, more affectionate style of reporting. *The Press* and *The Southland Times* focused almost exclusively on the experiences of the Holloways on the run, their financial struggles, the pregnancy and Liam's health. *The Southland Times* makes no attempt to discuss the actual 'alternative' treatments that the Holloways are using, nor the debates surrounding efficacy or ethics. It is taken for granted (or perhaps deemed as irrelevant by the publication) that the public knows what a quantum booster machine is and its benefits for the patient. The exclusion of discussion of the actual treatments is a very deliberate attempt to avoid having to pass judgement on the Holloways' actions. If the focus remains on rights and choice, the state becomes the aggressor and the debate can continue. If there is doubt over the specific treatment/s, this detracts from the larger political debates that this case is perpetuating. In the following excerpt one can see the descriptive presentation of 'quantum booster therapy' with no critical commentary on how it works, or its effectiveness in cancer treatment:

He was now being treated with quantum boosting therapy and Mr Holloway had said he was "already picking up". (*The Southland Times* 8.5.99:1)

Not a single report from any newspaper so far has actually provided an explanation for how the quantum booster allegedly affects the body, what it looks like, how many people use it or its historical roots. This is a major silence within the debate, perhaps because no one is viewed as qualified to comment, or secondly (and certainly in the case of *The Southland Times*) because it would not add anything to the position that *The Southland*

Times has constructed. What is of interest to *The Southland Times* is clearly not the benefit of this particular treatment, but the plight of the family and the important political issues surrounding their actions.

4.10 Public debate - June/Sept 1999

During this period *The Southland Times* remained silent, not engaging in the debate about the efficacy of the alternative treatment, parental responsibility and evidence-based medicine. The *Sunday Star Times* and *The Press* both engage in this heated debate, constructing positions in support of conventional medicine, using statistics and medical 'experts' as mechanisms by which to validate these positions.

The debate continues over this period primarily because the Holloways refuse to bring Liam in for 'a check-up', a condition (although unenforceable) authorities attached to the decision to drop the court order. Despite the fact that clearly the purpose of the check-up was to get justification for a second court injunction, Health care Otago insisted that they merely wanted to monitor Liam, to make sure that his cancer had not progressed too far. The *Sunday Star Times* engages in the debate over parental versus children's rights by presenting the opinions of the medical community and other 'experts' that support the biomedical model. Now that the court no longer considers Liam as a ward of the court, the medical community and other government authorities are presented as passive and worried, concerned only for Liam's health and not the issues surrounding the case. Now that the parents are free to decide on Liam's treatment, the authorities are presented as incapacitated, needing the support of the community to 'do the right thing for Liam'. The focus has shifted from the rights of the parents to the rights of the child. This is the same strategy used by other publications, such as *The Southland Times*, to bring attention to Liam's case, a strategy that is being reversed in support of conventional medicine. Particular representations of the case are used to regain support, to reassert territorial claims that have been lost, and to re-establish the boundaries between alternative and conventional medicine.

The excerpt below is the first discussion of the research techniques and methods used in biomedicine in the 'fight against cancer'. Using fairly technical language to explain the research process, this is clearly a move to give legitimacy to the statistics that the Holloways have questioned. This presents as an attempt to demonstrate the extensive research and effort the medical community puts into cancer research. Portraying scientists as passionate researchers, working hard to find cures for the public, the following excerpt demonstrates and explains the scientific process to the public. Further, it demonstrates awareness in the medical community that in order to gain public support, the public need to have some understanding of what is actually being done to fight cancer.

Scientists working in the Otago University cancer genetics laboratory last year discovered the gene which causes stomach cancer. The scientists compared the genetic make-up of family members who suffered from the disease with those who remained healthy. By comparing each person's DNA, they identified a single gene-E-Cadherin-which was mutating, leading to aggressive forms of tumours relating to stomach cancer. In the wake of their discovery, the scientists have developed a simple blood test which will identify who has the gene. Doctors around the world now want to use the test. Dunedin paediatric oncologist and cancer researcher Mike Sullivan, doctor to high-profile patient Liam Williams-Holloway, also works at the lab, studying the genetic change in cancers and gene chip technology. (*Sunday Star Times* 8.8.99:1)

This excerpt constructs the power of science to 'uncover the invisible', maintaining the potential to understand and control that which we do not yet understand, legitimating Sullivan by associating him with this groundbreaking scientific research. This report continues to promote evidenced-based medicine as the only 'pure' and effective method of validating medical treatments. However, it also suggests that the appeal of alternative medicine is derived from it being low-tech, high-touch and cheaper, all of which are polemic. Further more, this excerpt presents Dr Sullivan not just as a doctor, but a scientist, reinforcing his position to pass judgement on the actions of the parents. In the next report, the public is presented as lacking the ability to make a reasoned decision, reducing support of alternative medicine to naivety within the public – a lack of scientific education. Alternative treatments are not presented as beneficial in themselves, but merely containing those elements that biomedicine considers a low priority:

Claims for the effectiveness of alternative therapies seem to be a mixture of folklore, faith and anecdote. At the same time conventional medicine is moving in the opposite direction, towards an evidence-based approach. This involves more rigorous proof of the

effectiveness of therapies and the discarding (hopefully) of those found to be ineffective or unsafe. The appeal of alternative therapies is that they are high-touch, low-tech and often cheaper. Alternative therapists offer comfort and give more one-to-one time...alternative therapists need to expose their products to scientific scrutiny, so we can fairly judge the promises that are made. There has been a resistance to doing such research, with excuses that the research dollars go to conventional medicine. This isn't good enough. The alternatives industry is very large, millions of dollars are being extracted from the public. The proponents of alternative therapies need to inject some science into their practice, but at the same time, the mainstream health sector needs to address the growing dissatisfaction with how modern medicine is delivered. (*Sunday Star Times* 15.8.99:4)

The terminology used to describe alternative medicine compared to that used to describe conventional medicine is also an important factor with these reports. When discussing alternative therapies reporters use terms like 'claims', 'allegedly', 'hope', and 'comfort' whereas reporting on the medical community, they used terms like 'facts', 'scrutinised', 'approved', 'evidenced-based' and 'rigorous'. These are loaded terms, consolidating the discourses promoted by conventional medicine and throwing doubt on the legitimacy of alternative medicine. This represents alternative and conventional medicine as inherently different, with alternative medicine needing an "injection of science" and conventional medicine needing to "consider the whole needs of the patient". This reinforces the science/nature, reductionistic/holistic dichotomisation of alternative and conventional modalities.

'Sending in' their reporter, Miriyana Alexander, to investigate the 'alternative' practitioners practising in the Rainbow clinic who treated Liam, the *Sunday Star Times* constructs a first hand account of the quantum booster machine and the practitioners using this technique. The result is a report that mocks the 'irrationality' of the objects and practices used within the clinic. Alexander makes fun of the intimacy of the patient/therapist interaction and the focus on emotional well-being as an important factor in wellness. Using terms like "wand" instead of metal rod, sarcastically commenting on the hugs and various other techniques used within the clinic, this report constructs 'alternative' cancer therapies as unfounded and expensive with practitioners lacking accountability. The practitioners are presented as naive moneygrubbers, lacking in professionalism, with allegations that the clinic does not monitor its patients adequately and that there are seriously ill cancer patients in the clinic "still waiting for a cure". These

claims have been made by the medical community and presented previously in the media, but the following report was the first attempt to 'infiltrate' a clinic:

The therapists running Rainbow Health, Gerhard and Dawn Uys, are adamant they're harming no-one. They reject criticism that desperate people are being offered false hope. So what goes on at Rainbow Health? Well, for starters there's the hug. Everyone entering the front door gets one. Then comes the assessment. Uys claims to "take a reading" of the body's main organs by pressing a wand connected to an electrical machine on the acupuncture points of the hands and feet. He said the readings showed which organs were not performing. An iridologist, he also studies each person's eyes. Uys said the assessment showed my liver and pancreas weren't up to scratch. They could be fixed, he said, with a homeopathic concoction, or five minutes of hands-on healing. Hands-on healing it was. Uys closed his eyes and held his hands several centimetres above mine while his wife stood behind me, hands hovering above my shoulders. (*Sunday Star Times* 22/08/99:5)

Alexander uses words like "wand", "concoction", "hovering" to reproduce the image of the alternative therapist as the 'quack', making ad hoc decisions, using magical and supernatural techniques. This clearly aims at ridiculing alternative practices, further consolidating the position maintained by the *Sunday Star Times*. It also reinforces the view, clearly held by some of medical practitioners interviewed here (see Chapter 5) that alternative practices are not even worth considering, and the practitioners do not warrant professional respect.

A week later Frank Haden, a reporter for the *Sunday Star Times*, joins the mud slinging, debunking alternative medicine with some 'creative' writing around the idea of "The Gullibles' Society", which he thinks should be set up for supporters of alternative medicine. Following in Alexander's footsteps, Haden uses the term "Magic Box" to describe the quantum booster, "Tap water" to describe homeopathic remedies and "Quackery" to describe all alternative practices. Using the farcical concept of the 'Straight Spoon Award', this reporter sends up alternative medicine and ridicules the public and media support for the Holloways.

This year...we award our Straight Spoon to the Holmes Show. We want to make up for the nasty things the Sceptics said about the programme on Liam Williams-Holloway, the boy whose parents hid him away from fuddy-duddy doctors so a New Age practitioner could use a Magic Box to fix his cancer. The show treated the story just the way any self-respecting Gullible would, giving uncritical publicity to the claims made for the Magic Box. Called a "quantum booster", with commendably gullible acceptance of a pseudo-scientific absurdity, the Magic Box did exactly what was expected for Liam's cancer -

nothing. A Gullibles spoon awaits some enterprising television front person, or magazine feature writer, who does an uncritical article or documentary on homeopathy, or iridology, or colour therapy, to restore the balance in the fight for people to be allowed to make the wrong decision. (*Sunday Star Times* 5.9.99:4)

This report furthers Alexander's report, but blames the media for their uncritical appraisals of alternative medicine.

4.11 Going 'exotic' – Nov/Dec 1999

The decision of the Holloways to relocate to Mexico in an effort to gain access to the latest in alternative therapies brings *The Southland Times* back into the picture, appealing for public support and donations. They report that according to records (whose records they do not mention) the Hoxsey treatment has healed many patients of cancer (*The Southland Times* 12.9.99:1), constructing a very different representation of the Hoxsey clinic to those of other publications. As opposed to the *Sunday Star Times* and *The Press*, *The Southland Times* assumes that the 'alternative' treatments being used are effective, whereas the former assume that they are not. They state "his condition improved with five months of alternative treatment" whereas the *Sunday Star Times* stated that his tumour shrunk after two doses of chemotherapy. These publications both present these statements as fact, despite the fact that no one is sure which treatment had shrunk the tumour, if indeed either had. However, these claims function to validate a particular position in relation to Liam's treatment, and thus, we see contradictory representations of events between publications.

The Southland Times demonstrate their support for the Holloways by donating \$500 to their flight to Mexico. As seen in the excerpt below, they clearly state that they support the use of alternative treatments and wish to bring the family together. Treating the events as an advertising campaign, a number of organisations (United Airlines, Ansett New Zealand) supported the family as a means of exposure:

The Southland Times donated \$500 towards travel expenses. Ms Williams said she was "over the moon ... people are so kind." She hoped to firm up arrangements and travel to Mexico in about a week. Southland Times general manager David Wilson did not hesitate about the donation. "This is a story that has touched the hearts of a lot of people. We

wanted to help bring this family together," he said. Halberg Trust chairwoman Dame Susan Devoy agreed. "Helping his mother and her children to get there can only make a huge difference to Liam's health." (*The Southland Times* 13/11/1999:1).

In response to this strategy, the *Sunday Star Times* constructs a contrasting position on the public appeal for money, presenting state 'experts' as condemning the public appeal as "grossly unethical". Viewing the appeal as encroaching on their territory, the chairwoman of the Leukaemia Foundation joins with Christchurch Paediatric Oncologist Rob Corbett to reinforce research and clinical trials as the "only way we will see progress" in a report by the *Sunday Star Times*. Thus, we have two contrasting positions, using specific public figures to legitimate their particular angle; Susan Devoy (a known campaigner for children) for *The Southland Times*, and Rob Corbett and Ruth Spearing for the *Sunday Star Times*. The information is the same, but one publication presents it as community generosity and togetherness, and the other as "stupidity". This is a prime example of competing for resources, encroaching on the territory of others, and the strategies used to counter this challenge.

4.12 Women's magazines 'Compassionate consideration'

It is at this point that *New Idea*, a popular women's magazine, picks up on the Holloways' story, gaining an exclusive interview and pictures, presumably in exchange for a plea for public donations. Titled as "You're Liam's Last Hope", the report portrayed the parents as heroes, a 'David verse Goliath' style description:

The desperate plight of little cancer sufferer Liam Williams-Holloway struck the hearts and souls of Kiwis nation-wide. When his parents Trena and Brendan took him into hiding earlier this year, rather than subjecting their son to radical chemotherapy, the country was in a state of shock. (*New Idea* 13/11/99:10)

This emotive and highly sympathetic writing is in stark contrast to Ansley's presentation of the medical viewpoint on Liam's treatment. The journalist, Kimberley Patterson, adds in the words "plight", "little", "suffer", "hearts and souls", all of which construct a picture of sorrow and desperation, the need for comfort and support. She describes the parents as taking Liam into hiding rather than "subjecting" him to radical chemotherapy, portraying them as brave battlers who are prepared to risk all for the good of their son. Chemotherapy is described as radical, with conventional medicine projected as the

aggressor, the doer of harm to Liam, rather than the alternative practitioners, as was the case in Ansley's article. The implication of this is that these loving parents are protecting their son, rationally deciding to resist this invasive form of treatment:

While the nation was debating the rights and wrongs of what Trena and Brendan were doing, no one could blame the care parents for fighting to save their son's life. (*New Idea* 13/11/99:10)

Their actions are projected here as a crusade to fight for Liam. From Ansley's perspective their fight would kill Liam, as he would not receive the most effective treatment. This report contests this claim, suggesting that chemotherapy could have killed Liam, and alternative therapies are the only hope for a cure. Patterson includes the word "caring" to tease out this notion of Brendan and Trena fighting for the right side, asking, how can they be wrong if they love Liam and care for him so much?

The interesting question here is why is it that this popular woman's magazine supports the Holloways rather than echoing the position of the *Listener* or *North and South*? Why do they construct a position of romanticised support for the Holloways providing without considering whether they are providing the most 'effective' or 'legitimate' treatment for their son? Winship (1987) argues that historically, women's magazines have taken a romanticised, "happy-every-after" approach to social life. This version of Liam's story plays on the notion of a happy family, loving parents and a soap opera plot, similar to those found frequently in women's magazines. These magazines focus on bad situations that have happened to good people, wholesome stories of strong emotions and relationships, not scientific proof and rational choice. *New Idea* offers the audience (primarily women) connection to strangers and drama, rather than critical appraisal of current political issues relevant to the case. It offers a position of empathy for the Holloways and support for alternative medicine, legitimated by the "ravages of radical chemotherapy" and the "non-invasive nature" of alternative therapies.

It is also important to note that women use alternative therapies more frequently, than by men (see Fulder, 1996). In our random survey of Christchurch residents we found that 80 percent of women compared with 20 percent of men, had used some form of alternative treatment (See Appendix 1 for further details of this study). Thus, higher *usage of*

alternative medicine by women, even if merely in conjunction with conventional treatments, would in all likelihood be accompanied by higher support from women for the right to choose alternative cancer therapies. This may explain why *New Idea*, a magazine aimed at women, constructs a position in support for the Holloways, focusing in the emotional rather than technical or political issues.

4.13 Old school prevails

Once again cynical towards the prospect of Liam's move to Mexico, *The Press* focuses on criticism of this move and its supporters. Christchurch paediatric oncologist Ross Corbett is the source of comment on the dangers of supporting and using alternative medicine. He warns the public and the parents of the consequences of going to Mexico. Not discussed in *The Southland Times* reports, Liam's death has been a focus in *The Press* and the *Sunday Star Times*. The following excerpt warns of the consequences of the public supporting "unfounded" cancer treatments:

Christchurch paediatric oncologist Rob Corbett has slammed a public appeal and said four-year-old Liam would die unless he received conventional treatment for the neuroblastoma tumour growing on his jaw. (*The Press* 16.11.99:3)

The *Sunday Star Times* takes an even more critical approach describing the whole process as "grossly unethical", "horrendously disturbing" and a "perilous situation" in the control of "crankies" in Mexico. Constructed as a moral outrage, the *Sunday Star Times* presents the perspectives of a large number of state experts condemning the actions of the Holloways. The following excerpt demonstrates this effort to stimulate 'moral panic':

It was "grossly unethical" to ask people to pay for unproven therapies, said Christchurch paediatric oncologist Dr Rob Corbett. Leukaemia Foundation chairwoman Dr Ruth Spearing backed his call, saying it was "horrendously disturbing" to see money being donated to the appeal when the foundation struggled to fund research and clinical trials. Corbett said it had been absolutely inevitable Liam's tumour would return and the child was likely to be in "a very perilous situation". He said it was inconceivable that a therapy from "some cranky institute in Mexico" would cure him. (*Sunday Star Times* 14.11.99:3)

This consolidates themes that have become the 'bread and butter' for the *Sunday Star Times* reports of Liam's treatment. They draw on medical experts, once again, to project certainty in cancer progression, to condemn the alternative treatments as hopeless and to stem public support for the Holloways' actions.

A week later the *Sunday Star Times* publish a report on the success of the conventional medicine, and chemotherapy against cancer. Averaging out the success rates of conventional medicine they state that 70% of children diagnosed with cancer are cured. This 'fact' is irrelevant to Liam and to any other child cancer sufferer because it homogenises all types of cancer (cure rates can range from below 1% to approximately 80%), but it does paint a 'rosy' picture of conventional medicine in terms of its overall ability to fight cancer. The report consolidates the discourse constructed by the medical practitioners, that chemotherapy is 'not that bad', and that it is courageous to bear the side effects with little or no complaint. As Stacey argues, this is a common discourse associated with cancer, people are encouraged to "win the war" against cancer through having a positive attitudes to getting better.

The appeal of the masculine hero narratives of science cannot be overestimated. Trust doctors, they know best. Your body becomes the battleground between good science and bad disease. If you give yourself up to their wisdom and follow their instructions, you stand the best chance. Many (though by no means all) medical staff show little tolerance for patients who do otherwise (Stacey, 1997:11)

Stacey argues that heroic cancer narratives reproduce the conventional privileging of the triumphs of a few at the expense of the majority. She argues that the heroes of cancer are represented as special people, as unique individuals, as better than the rest. Lupton (1994) reiterates Stacey's personal experience, stating that people suffering from cancer are lauded if they appear to be brave, never allowing themselves to give in to the cancer. This discourse is associated with the practice of informing the patient of his/her prognosis, the implication being that if the patient is not positive enough, the patient can be held culpable for their attitude. Erwin (1987:202) comments that when this metaphor dominates, cancer victims are expected to fight the sickness, providing them with the 'glories of war heroes' even if they do not actually get better. In this light, the doctor becomes the military-like leader, the authority with precision, lack of emotion and an aura of control. If the patients cannot handle the treatment they are viewed as inadequate and weak, failing themselves rather than the system failing them. This constructs a position that views people that refuse conventional treatments as of less worth than those prepared to go through hardship to achieve the best result:

Macfarlane, president of the Australia New Zealand Child Cancer Study Group, said emotive comments about chemotherapy were "disturbing". "There is talk of the ravages of chemotherapy, or that it is inflicted on people. A lot of parents who have chosen chemo on the basis of the facts feel they've had to defend their decision against the public outburst. "But would you rather have chemotherapy and a chance at life, or avoid chemotherapy and its side-effects to jeopardise that life for something unproven? It is just wrong to say chemotherapy cannot cure cancer." (*Sunday Star Times* 21.11.99)

This, in part, solves the pain and suffering of conventional treatments, constructing the trauma as character building and an important part of the cure – the “no pain not gain” attitude, prevalent in New Zealand culture. In this way the medical community can promote the most negative aspects of their treatments. Pain and discomfort during treatment are presented as necessary in the battle against cancer, a construction that also is used to criticise alternative therapies as inert, weak and ineffective. Thus, the negative side effects of conventional treatments are recast as ‘challenges’ that people with character (whether patients or parents) can embrace as a route to wellness.

4.14 Resorting to ‘chemo’ – Jan/Feb 2000

By January 2000 Liam’s tumour had increased in size to the point where his parents decided to relocate to a clinic in Germany offering both alternative and conventional cancer treatments. This sparks renewed interest in the case, with questions regarding whether chemotherapy should have been enforced in their early stages of Liam’s cancer. *The Southland Times*, previously resistant to involvement in debates over certain issues (efficacy, ethics, neglect, parental responsibility), avoids considering the implications of the parents resorting to chemotherapy after their rejection of this treatment option. The parents’ use of chemotherapy has the potential to disrupt earlier support for their rejection of this treatment, and thus, is given little attention. They cover the strength of the family, the weather and language problems the family is experiencing, maintaining a position of uncritical compassion:

Speculation last night that young cancer sufferer Liam Williams-Holloway was receiving chemotherapy in a German Hospital has not been confirmed...The family confirmed late last year the alternative Mexican clinic did offer a low-dose form of chemotherapy as a "last-resort" treatment. Ms Battson said the family had opted to go to Germany to be with staff who had been treating Liam in Mexico. "The clinic has extended into Germany and

they had to take the staff to Germany to train," Ms Battson said. (*The Southland Times* 13.1.00:1)

It is at this stage that articles about Liam's condition become less frequent. The debate moves away from Liam to new cases viewed as a result of the state's inability to act in relation to Liam. After a particularly bad period in Germany over Christmas 1999, the Holloways travel back to Mexico to receive further treatment after Liam's tumour goes into remission. On the 18th of June 2000, a report on Television One's *60 Minutes* shows that the neuroblastoma tumour has returned to Liam's jaw. Liam is still in Mexico at this time (*The Dominion* 19/06/2000:3). It is now 21 months since Liam was first diagnosed with neuroblastoma.

4.15 Discursive practices in the media

The objective of this chapter was to analyse boundary work as evidenced in the media debate over the treatment of Liam Williams-Holloway. The focus was on the role of the media in the construction of boundaries between 'alternative' and 'conventional' medicine. Throughout the media debate the various publications analysed consistently represented differences between 'conventional' and 'alternative'. By drawing on the discursive and regulatory practices of health organisations, health practitioners, politicians and individual actors, these publications constructed 'an angle' on Liam's treatment. They did this by using the language of 'science', 'efficacy', 'anecdote', 'nature', 'professionalism', 'objectivity', 'evidence' and 'certainty' to offer positions on this controversy to the public. They utilised existing discursive practices to support 'alternative' medicine, 'conventional' medicine, and the 'rights' of parents. As Foucault states, discourse is a *practice* we impose on things. The media is an important actor because it imposes discourse through text, "produc[ing] the things of which it speaks" (Threadgold, 2000:49). Discourses of legitimacy, such as those constructed by these publications, in part, produce what is considered 'alternative', and 'conventional'.

The dynamics both within and between publications, the mechanisms of validation and the reactions to particular events are all indicative of discursive processes between people, interest groups and organisations. I have drawn out specific themes, mechanisms,

discursive processes, methods of validation and strategic silences that were evident within the media debate. Just as these publications were engaging in these discursive practices, so are organisations, interest groups and individual actors. This is the process of negotiating positions within the overall network. By discursively positioning themselves within a network, these actors both integrate parts as well as redefine parts of the existing network. As the debate develops, the discursive practices of particular actors (in this case of certain publications) may change, actors may re-orientate themselves around particular institutional mechanisms to create a 'story' or discursive representation. Thus, we see the *Sunday Star Times* repositioning itself in order to get the exclusive story from Liam's parents, and repositioning itself to maintain support for biomedicine. We see *The Press* moving from criticism and alignment with conventional medicine, to sympathy and descriptive reporting as events unfold. Early on in the controversy, *The Southland Times* presents itself as in opposition to the state, only later to align itself with specific state officials who support Liam's parents. These shifts are a result of the ongoing need to make sense of events and of new developments and to use these to construct particular positions as legitimate.

It is not the meaning of individual texts that matter, but rather their effect, the impact of their being said, at a particular place, and at a particular time (Foucault, 1980, 1981). The effect of these media reports was to normalise certain constructions of alternative and conventional medicine. The *Sunday Star Times* constructed alternative treatments as ineffective, pseudo-scientific and expensive, and alternative practitioners as dishonest, happy-go-lucky and misinformed. They represented conventional medicine as scientific and effective, and medical practitioners as objective, professional and ethical. The effect of these representations is to consolidate these qualities, and exclude other qualities that may disrupt these images of conventional or alternative medicine. *The Southland Times* presented alternative medicine as one of a number of health care options, legitimate, natural, harmless but effective, and alternative practitioners as supportive, caring and knowledgeable. Thus, what appears are particular constructions of 'alternative' and 'conventional' medicine that legitimate a particular position, constructions that systematically reproduce 'difference'. Further, these oppositions are consolidated as

actors use these ‘differences’ to critique both alternative and conventional medicine. On the left of Table 4.1 we can see how particular publications represented conventional medicine, and on the right, how this representation was critiqued by other publications. Both sides base their arguments about ‘conventional’ medicine on certain qualities – ‘scientific’, ‘evidenced based’, ‘ethical’, ‘invasive’, ‘objective’ and so on. In this way, both representations, positive and negative, contribute to the naturalising of these qualities as being inherent to ‘conventional’ medicine:

Table 4.1: Media representations of ‘conventional’ medicine.

+ Conventional Medicine —	
Science as ‘cure’	‘Science’ as a method of exclusion
Objectivity	Dehumanising treatment: detachment and abstraction from the patient
Evidence-based medicine: RCTs	Reductionistic
Symptomatic medicine	‘Missing the whole picture’
Control of disease: ‘cure’ rates	Inapplicability of quantified data
Ethics: medical responsibility and established procedure	Inflexibility
Parental responsibility: informed consent	Responsibility and consent as defined by the medical profession.
Professionalism: accountability, integrity, training and regulation	Monopoly
Right to receive ‘best’ treatment	Right to chose treatment

While offering a critique of conventional medicine, facets of the media still reinforce conventional medicine as having certain qualities. This process of reproducing difference also occurs in representations of alternative medicine. Reports supporting alternative medicine invariably promoted the ‘natural’ basis of alternative treatments, the ‘holistic’ approach to healing, the primacy of the individual, and the ‘friendly nature’ of practitioners practising alternative medicine. Moreover, in criticising alternative medicine, the focus was on the lack of a scientific basis for treatments provided by practitioners who lack accountability and use ‘nature as a substitute for efficacy. Both

these representations consolidate the view of alternative medicine as inherently holistic, natural and so on:

Table 4.2: Media representations of 'alternative' medicine

+ Alternative Medicine -	
Holistic care: mind/body/spirit	Inefficient and ineffective
Healing: as opposed to 'cure'	Palliative: no impact on disease
Anecdotal evidence: focus on outcome	Ideal scenarios projected as typical
Pluralistic treatment: multiple modes of healing	No quality control: what 'works' and what doesn't?
Patient centred treatment: focus on 'story' and 'self help'	State funded counselling
Case by case diagnosis: individualised treatment	Inconsistent: random diagnosis and treatment
Natural Medicine: non-invasive	Ineffectual: lacking potency
Individual rights	Unaware of wider trends
Freedom of choice	Informed choice?

These two tables contain methods of representing health practices; methods of validation and contestation that were used (in some cases interchangeably) within the media debate to legitimate particular positions. These representations have the effect of constructing and reproducing 'difference' between alternative and convention medicine. These are just some of the many strategies used to validate and invalidate actions, policies, practices and laws that remain vital to understanding the contestation between alternative and conventional medicine.

An important consideration is that these representations are in part derived from the discursive practices of health practitioners. The media can only be held partially responsible for the ongoing construction of difference between alternative and conventional medicine. Through the media we can access abstract versions of the

boundary work done by certain groups, among these, health practitioners. Many other actors contribute in an ongoing way to the boundary work that constitutes differences between alternative and conventional health care. The next chapter focuses on how the selected health practitioners represent and validate their practices. It explores how they do the boundary work that contributes to the construction and sometimes the disruption of boundaries between 'alternative' and 'conventional' medicine.

The media controversy reviewed in this chapter is also a debate about the rights of parents to make decisions about children's health care. This is an extremely important social issue and constitutes a thesis in itself. My focus is on how media representations of particular health care practices are implicated in the construction of boundaries between alternative and conventional medicine. In the following chapter I explore how 'boundary work' is done by health practitioners who both construct and challenge some of the oppositions represented in these media accounts.

Chapter Five

Blurring boundaries

The deconstruction of difference in the 'talk' of 'alternative' and 'conventional' practitioners

5.1 Representing and misrepresenting practices

This chapter extends my analysis of the strategies used by the media to do boundary work to an analysis of the discursive resources used by a group of alternative and conventional health practitioners. It draws on a number of interviews with selected health professionals in Christchurch and examines their responses to various issues raised by the Liam Williams-Holloway case. The media sources analysed in the previous chapter provided an indication of the discursive practices of various health professionals. We saw the media actively using strategies to legitimate particular positions in relation to Liam's treatment. The media contributed to the construction of difference between alternative and conventional medicine, by representing them in opposition (science/nature, trial/anecdote, objective/holistic, synthetic/natural, invasive/intimate) and thereby promoting inherent distinctions between alternative and conventional practices. The media tended to present 'ideal' representations (in the sense of Weber's 'ideal type') of alternative and conventional medicine.

Through interviews I wanted to see how medical practitioners represented their practices. This meant examining the multiple methods by which these actors both constructed and contested the legitimacy of particular practices. This chapter argues that the rhetorics developed by these practitioners surrounding 'science', 'nature', 'holism', 'evidence', 'ethics' and 'anecdote' are an essential part of the process by which occupational

territories are maintained and contested. They are attempts to consolidate, and in some cases contest, the organisation and the ordering of health practices.

As I demonstrated in the previous chapter, the media are involved in persuading audiences of the legitimacy or illegitimacy of positions in the debate about alternative and conventional medicine. Just as the various media actors are engaged in constructing, consolidating and contesting particular positions within debates about medicine and alternative healing technologies, so too are health practitioners. They occupy positions, using particular mechanisms and rhetorical devices to give their position legitimacy. Just as the media use notions of 'science', 'nature', 'evidence', 'holism', family, outcome and 'ethics' to construct legitimacy, these practitioners are involved in an ongoing process of validating their positions within the Liam Williams-Holloway debate, and in doing so, their treatment practices.

Of particular interest here are the discursive strategies of health practitioners that contradict simplistic representations of alternative and conventional medicine. These are rhetorical strategies that problematise what certain actors (such as the media and individual practitioners) construct as the 'essential differences' between alternative and conventional medicine. My interviews with alternative and conventional practitioners suggested that 'science', 'evidence', 'consensus', 'symptomatic diagnosis', and 'ethics' *are* used by alternative practitioners, and 'holism', 'anecdote', 'individualised care', and 'nature' by conventional practitioners. This 'talk' disrupts simplistic distinctions presented within the media debate. Further, I am interested in the role of these incongruities and contradictions in the process of securing and contesting positions within the health care network. I argue in this chapter that it is not so much the differences between alternative and conventional medicine that are important, but rather the similarities. It is these sites of connectivity and contestation that necessitate the simplistic oppositional representations seen in Chapter 4. This is because the construction of difference ensures that 'inherent qualities' are retained, professions legitimated or illegitimated and thus positions within the health care network consolidated.

The focus of this chapter will be on how a small selection of health practitioners use dichotomies such as science and nature, randomised-controlled trials and anecdote, statistics and outcome, organisation and plurality, intimacy and objectivity, consensus and multiplicity, to do boundary work. I will illustrate how these dichotomous practices and ideas are used by particular actors to construct boundaries between alternative and conventional medicine. I am particularly interested in how various practitioners align themselves with particular ideologies, how they use various discourses to validate their practices and contest the practices of 'others'. Most importantly, this chapter examines how these very discourses are contested and reconstituted.

It is important to note that the following interviews have a particular context. They were completed *after* the media debate over the treatment of Liam Williams-Holloway, in an environment where many groups in New Zealand were asking serious questions about the nature of our health system and approach to cancer treatment. The Liam Williams-Holloway case has dramatically intensified public debate over alternative treatments, resulting in significant media coverage on issues and practices not directly related to the Liam Williams-Holloway case. Thus, these interviews are shaped by this climate - they are products of a time of controversy about alternative practices.

In total I interviewed eleven health practitioners, five 'alternative' and six 'conventional'. Of the alternative practitioners, I interviewed a naturopath, a healing touch therapist, a craniosacral therapist, and two herbalists who are currently the Co-directors of the Christchurch School of Natural Medicine (Peter Kearns and Colleen Anstey). The doctors I interviewed included three second-year house surgeons, one general practitioner, an oncologist (Dr Bridget Robinson, Associate Professor of Oncology, Christchurch Hospital) and a gynaecological oncologist (Dr Peter Sykes, Christchurch Women's Hospital).²⁷

²⁷ Details of these interviews are included in Chapter 2. The oncologists and the Co-directors of the Christchurch School of Natural Medicine are the only interviewees who are referred to with their real names. The other names are pseudonyms.

5.2 The terminal nature of cancer

The most important point to stress at this stage is that these interviews with health practitioners are focused on the treatment of cancer. As evidenced in the interviews, the terminal nature of cancer means that the medical community places a greater emphasis on rigorous scientific testing, and secondly, they are more likely to have strong views on patient usage of alternative or complementary treatments. All the doctors interviewed emphasised the role of desperation in patients' use of alternative cancer treatments, and the doctor's responsibility to ensure that this does not lead to harm.

'Dr Baird'²⁸ (House surgeon, 15/5/00) stated that "doctors become more defensive and the patient's suffering is a lot more desperate when you are dealing with cancer". He suggested that greater concern is warranted with cancer patients, as often they are mentally unstable. Interestingly, Sollner et al (2000:873-80) examined the relationship between desperation and psychological disturbance in cancer patients and use of alternative therapies (N = 172), concluding that there was no connection. Sollner et al argue that distress is not related to the use of alternative therapies; rather, seeking alternative therapies is an active coping behaviour to combat feelings of passivity and hopelessness. However, the doctors interviewed maintained that desperation was a primary factor in patients' use of alternative therapies. Regardless of whether or not there is a relationship, the effect of this rhetorical strategy is to construct alternative therapies as a 'last resort', and patients who use them as 'hysterical' and psychologically impaired.

Another consideration is that both Dr Robinson and Dr Sykes suggested that oncology is very different from other specialities, with the time spent with patients leading to strong bonds, and doctors protective regarding "false hope" and "claims of cure". These strong bonds are in part a result of the time spent by oncologists negotiating treatment options with patients²⁹ and liaising with family and friends. Further, many cancer patients have

²⁸ Pseudonym.

²⁹ Generally a cancer patient will be provided with a number of treatment options, depending on the type of cancer. For example, in the case of breast cancer, chemotherapy doses can be altered in cases where patients are concerned about infertility. As a result, in many cases, a large amount of time is spent deciding which treatment suits the patient's needs.

ongoing intensive treatment for long periods of time, with frequent visits to the hospital, becoming familiar with the medical staff and the hospital system. This undoubtedly affects the interaction between the physician and the patient, and ultimately, the treatment process.

According to the alternative practitioners, the result of this intensified 'protectiveness' from medical practitioners is that patients do not inform their doctors that they are using alternative therapies, resulting in discontinuity in treatment, fear and guilt that may limit the healing process. This, according to these practitioners, limits the possibility of collaboration between alternative and conventional medicine that could involve sharing valuable information that might improve the chances of a successful treatment. They argue that it is essential that the patient is relaxed and comfortable with the decisions they are making and the treatments they are receiving, if they are to maximise their body's ability to fight cancer. Moreover, alternative practitioners claim that when doctors refute the benefits of alternative treatments this amounts to "negligence" ('Atkins', healing touch therapist, 20/8/00). This is because, whether or not the substances themselves actually work, the placebo effect of these treatments may be powerful for multiple reasons, and in actively condemning their validity, these doctors are limiting the patient's ability to fight the cancer.

The oncologists argue that it is the alternative practitioners that are limiting the chance of cure. They argue that any possible benefits that may be associated with alternative cancer treatments (if any) are outweighed by the financial burden that they place on the patient. Any possible placebo effect, they argue, is nullified by the stress put on patients when forced to pay large sums of money for 'palliative' therapies. Furthermore, they suggest that the emotional demands of the more "exotic" therapies, such as having to move away from family and friends for long periods of time, have a debilitating effect on the patient's ability to fight cancer.

What these dialogues highlight is the influence of 'cancer' as an actor in shaping the dynamics between these practitioners, creating conflicts that may not emerge in the treatment of other conditions (e.g. backache, headache). As Rosenberg (1989) suggests,

once isolated as a specific entity, a disease serves as a frame, a social actor or mediator that impacts on the development of knowledge, technologies, practices and so on. Thus, to understand the boundary work done here, one should consider the terminal nature of cancer, its history, its prevalence, its progression and its treatment. Cancer is the common link between all the actors analysed here, both human and non-human. This is important because it is cancer that necessitates the kind of boundary work done in this chapter. If I interviewed neurologists about the treatment of chronic headaches and their attitudes towards alternative medicine, their discursive strategies would have been very different to those seen here. This is because there is an established 'scientific' explanation for how cancer acts on the body, what it looks like, how it should be treated in certain organs and at certain phases, as so on. Neurologists will acknowledge that headaches could be the result of a multitude of problems, from a brain tumour to a lengthy divorce settlement. They will, of course, attempt to isolate the physiological cause/s of the headaches, assisted by a vast number of possible causes and treatment options, but in many cases, the source is not found and the patient not 'cured'. However, in the case of cancer, there is an established and accepted understanding in the scientific community as to why it occurs, how it acts on the body, and how this may be restricted.

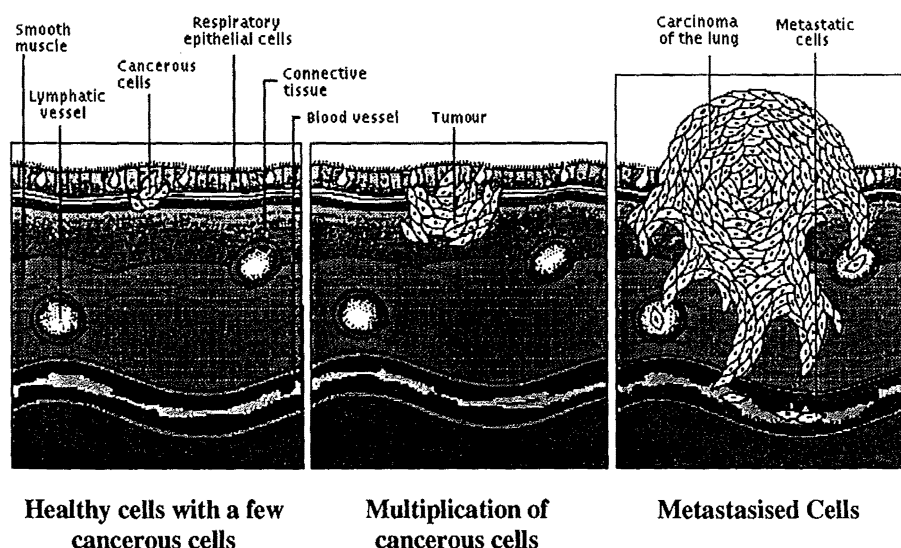


Figure 5.1: The development of cancer (Encarta® 1997)³⁰

³⁰ "Cancer (medicine)," *Microsoft® Encarta® 97 Encyclopedia*. © 1993-1996 Microsoft Corporation.

Figure 5.1 demonstrates how the biomedical community visualises cancer acting within the human body. This knowledge, in part, determines the strategies that these practitioners can use to promote their practices. Cancer inscribes or leaves traces on other things, linking together oncologists, cancer technologies, oncology departments, cancer organisations and oncology journals. All these social phenomena are in part produced and shaped by the way cancer acts on the human body. Further, cancer is in itself made up of many heterogeneous actors. Each type of cancer creates different linkages, engages in interaction with patients differently, creating a network in a patient's body attacking certain cells, organs, resulting in particular symptoms and responding to certain treatments. This network effect allows doctors to visualise how particular cancers act on the human body.

But it is not just cancer acting on the body or on society; it is about reciprocal inscription and modification. As more is learnt about cancer, we develop new ways of viewing or treating it, and thus, it acts differently. The more we can visualise cancer, thus becoming a permanent actor, the more actors get involved (cancer society, neuroblastoma mailing list, experimental drugs, pharmaceutical companies and so on), thereby extending networks. As Latour (1999b:147) argues with reference to scientists and micro-organisms, "the more activity there is from one, the more activity there is from the other". We learn more each year about how cancer acts, more about how it may be controlled, developing new technologies, explanations, treatments and techniques. But cancer influences these developments, these techniques; it acts on them, shaping them. As a result, as Latour points out in relation to Pasteur's famous discovery, the more we act in relation to cancer, the more it acts on us (Latour, 1999b:147). The important point for this thesis is that cancer is an influential actor, leaving its inscription on the organisations, knowledges, technologies, practices and rhetorical strategies analysed here.

One might ask, if we view cancer as an actor that both shapes and is in turn shaped by social actors, does this mean that cancer is merely a social construction - can we even be sure that cancer existed before scientists discovered it, labelled it, and treated it? Latour

asks this very question in relation to Pasteur's microbes (1999b:145). Did microbes exist before Pasteur discovered them, he asks? The answer is, of course, 'yes' in terms of both cancer and microbes - they did exist before they were discovered, but they acted differently, they had different effects, just as certain actors had a different effect on them. Just as organisations, knowledges, technologies and practices evolve over time, so does cancer. I would suggest that it is important to avoid seeing disease as invented by human actors, or humans as passive observers of the activity of disease (Latour, 1999b:147). As Latour suggests we should instead view the tension between humans and disease as a case of reciprocal inscription and modification. Thus, I view the strategies presented here, the organisations, technologies, and practices, as both affecting cancer, and as effects of cancer.

Another consideration is that, in general, commentaries on the role of alternative treatments (see Saks, 1992; Easthope, 1993; Willis, 1994; Dew, 1998; Scott, 1998) are not focused on the treatment of terminal illness (Eisenberg et al, 1993). Alternative medicine is generally examined in relation to treatment of chronic illnesses. These chronic illnesses are often those that 'slip through the hands' of conventional medicine, with the medical community prepared to let alternative therapists pick up the pieces. In these particular cases, doctors have not been effective in influencing these particular 'actors' (i.e. chronic conditions like irritable bowel syndrome, back pain, gastritis, asthma), and thus are less focused on invalidating other practitioners who are to some degree, successful in doing this. Cancer, however, is significantly different from these chronic conditions. It is the second leading cause of death in adults in the Western world, and is one of the leading causes of death from disease in children between the ages of 1 and 14.³¹ As a result, the medical community invests a phenomenal amount of time and money in treatment and research, developing in many cases, very effective treatments against some forms of cancer. For instance, nine out of ten children recover from Hodgkin's disease, whereas 30 years ago only about half survived. Other forms of cancer, such as non-Hodgkin's disease and some forms leukaemia, can be treated very successfully, as can certain forms of non-invasive bladder cancer, which, if detected

early, can be contained over a period of several years. Moreover, up to 70% of all children with cancer can now be cured,³² with childhood leukaemia (once a certain death sentence) cured up to 80% of the time.³³ However, conventional medicine has been relatively unsuccessful in treating breast, lung, and advanced childhood cancers due to their rapid progression once developed (see Brodeur et al, 1993). In some cases, the medical community has virtually no control over the development of cancer, no influence over how it acts on the patient's body. If conventional medicine had control over how cancer acts, then there would be no debate regarding the position of conventional medicine. But it is this uncertainties with respect to controlling cancer as an actor that necessitates boundary work, resulting in the use of the rhetorical strategies illustrated here, to construct validity. Thus, it is cancer that tests the limits of biomedicine and alternative medicine; it promotes exploration into alternatives otherwise avoided, and, through death and cure, contests the position of both.

5.3 Science and evidence

Perhaps the most potent contestation, both within the Liam Williams-Holloway debate and within debates surrounding primary care, is that between 'evidence-based' and 'holistic medicine'. In the present climate, the state funds only those treatments seen to be based on 'scientific evidence',³⁴ and thus, this notion of holistic care has wider implications in terms of what is considered by the state and by the medical profession as a legitimate treatment. The discursive practices of these practitioners in relation to evidence-based and holistic medicine contribute to the construction of valid and invalid treatments. The process of justifying and consolidating the importance of 'scientific'

³¹ "Cancer (medicine)," *Microsoft® Encarta® 97 Encyclopedia*. © 1993-1996 Microsoft Corporation.

³² 'Cure rate' or 'cure' refers to the percentage of patients that will survive more than five years after treatment has begun. In the case of young children (1-5yrs), if a child survives five years in most cases the cancer will not return, as the child has survived longer than cancer took to develop in the first place. Thus, from the initial growth rate of the cancer one can deduce that in all probability the original cancer has been destroyed (Dr Allen, Interview, 8/5/00).

³³ National Childhood Cancer Foundation Homepage, North America, 2000.

³⁴ Technically the state will fund any practice deemed appropriate by a licensed medical practitioner. However, a practitioner is ethically obliged to prescribe only those treatments deemed 'scientifically proven' by medical research. Christchurch Oncologist Dr Robinson stated that it was within her power to prescribe vitamin supplements for cancer patients, but this would be seen as unethical by her colleagues, and possibly even disputed by the health funding authority.

evidence functions to separate forms of alternative medicine from conventional medicine. The conventional medical practitioners I interviewed were consistent in their insistence on the importance of clinical trials to legitimate treatments. When asked about the importance of scientific evidence and statistics in medicine, both the oncologists emphasised their primacy:

We can list for them [the patients] the percentages, we can say what will happen and we even talk about the one-percent risks...Any treatment now which is used, has to have been subjected to a big stage three trial. For treatments that we are already using, for another treatment to be brought in as a standard treatment, there needs to be big randomised trials. The exceptions are the very rare cancers, but even then, the preference is for them to join a trial group and treat it within that trial (Dr Robinson - Oncologist).

Dr Robinson is swift to stress that all treatments have to be subjected to a “big stage three trial” before they would consider using them. She insists that it is the responsibility of the medical profession to ensure all treatments are rigorously scientifically tested before they become available. Further, such testing is important for truly ‘informed consent’ because without statistics produced from RCTs (randomised controlled trials), the doctor cannot provide the patient with enough information so that the patient could be responsible for his/her decision. Dr Sykes also reinforces the role of RCTs:

If we introduce some sort of therapy we should try and do it by the same rules that we use for the introduction of any other treatment. Any treatment that is even proven elsewhere, that we take on here, I like to evaluate it as we go, and preferably with some sort of controlled trial. If we changed our practice we would aim to base it on some sort of evidence. There are never going to be perfect RCTs for everything, but there has to be some way of systematic evaluation of a treatment before you institute it or when you have instituted it to see whether you should continue it (Genealogical Oncologist)

These two quotes demonstrate the powerful role played by evidenced-based medicine in conventional medicine. Firstly, RCTs are viewed as the only method by which a treatment can be used within the hospital system. Although there is some recognition of the need for further RCTs for existing treatments, RCTs are viewed as the ultimate and only ‘legitimate’ measure of efficacy in medicine. As I have suggested in previous chapters, the consolidation of this discourse of legitimisation occurs at a number of levels: through medical training, medical literature, dissemination of knowledge through hierarchical structures (consultant/registrar/house surgeon interaction) and medical ethics

committees. The significance of this discursive and regulatory strategy is that it is by establishing and securing a 'yardstick of legitimacy' that the boundaries between alternative and conventional medicine are consolidated. RCTs are a mechanism by which the medical community draws the line between 'conventional/alternative', valid/invalid, scientific/quackery and effective/ineffective. They are also used to assess the benefits of new treatments, providing a means of assessing whether experimental treatments are more effective than existing treatments. For the medical community, 'validity' is directly proportionate to the level of 'scientific rigor'. The process of going through an ethics committee, getting funding, organising a research team, doing the actual research and getting a medical journal to publish the results, is viewed as a fail safe process that 'weeds out' questionable therapies. Thus, according to these practitioners, any treatment can be legitimated *if* funnelled through this process, and thus, the responsibility lies purely on willingness to 'put in the work'.

However, the alternative practitioners interviewed argued that RCTs are a mechanism by which the medical community block out alternative paradigms of healing, rather than ensuring the validity of treatments. For these alternative practitioners, maintaining the RCT as the gauge of efficacy was a means of reducing healing to the physiological, excluding the possibility of the mind and the spirit in the healing process. Further more, the alternative practitioners viewed RCTs as an invalid gauge of legitimacy, firstly, because they do not acknowledge individuality in treatment:

This catch phrase of science really means a double blind trial which is invalidated before it starts because it assumes that everybody is the same, and that's a joke. So your premise from zero base is invalid. The concept of "evenly matched" defies the reality of genetic makeup (Peter Kearns – Co-Director of the Christchurch School of Natural Medicine)

Further, Anstey argues that biomedical research methods do not capture the whole effect of the herb in herbal medicine, focusing on isolating a single 'active' ingredient, rather than understanding its whole effect as seen in the healing process, not in the laboratory:

One of the problems of conventional research, with regard to, for example, herbal medicine, is that nobody really understands how the plants work. They work in some ways quite directly and in some ways indirectly. Once you start isolating out ingredients, the whole plant is no longer being considered and it is a thought that it is the way the

whole plant works that reduces side effects. I think the current [biomedical] research paradigm is not a good one for herbal medicine. It tells us something, but it's not telling us the whole story. (Co-Director of the Christchurch School of Natural Medicine)

Thus, one can see a discursive struggle emerging regarding particular measures of legitimacy. These herbalists contest the RCT as a measure of legitimacy in terms of its inability to incorporate individuality and its focus on the isolation of the active ingredient rather than an understanding of the whole process. These rhetorical strategies are reminiscent of those used in chapter three within the media – the use of holistic principles (traditionally used to represent alternative modalities) to contest the legitimacy of scientific medicine. Anstey and Kearns contest conventional medicine by representing it as de-individualised, disjunct from 'real life', with medical practitioners lacking a real understanding of the healing process. By contesting the reductionistic nature of the biomedical model, and thus conventional medicine, these strategies have the effect of separating alternative and conventional practices, constructing and reproducing the 'differences' seen in tables 4.1 and 4.2. In this way, these alternative practitioners, in part, reproduce the very boundaries that they seek to disrupt.

5.4 Fallible knowledge

Get your facts first - then you can distort them as you please.

- Mark Twain quoted in Rudyard Kipling's,
From Sea to Sea, 1900.

An issue strongly debated within the Liam Williams-Holloway case was the fallibility of medical treatments, and the uncertainty involved in medical practice. An important discourse within the media debate was of the misinformation presented to the public by the medical community, evidenced in the 'glossing over' of side effects and the 'boosting' of survival rates. Within certain media reports, there was a concern that the medical community was projecting false certainty to protect its autonomy. Garattini and Liberati (2000) address this issue, claiming that there is little evidence to evaluate the effectiveness of many medical acts and procedures, including everything from commonplace procedures to high-tech interventions. Although the rhetoric from the medical practitioners interviewed here is of the dominance and importance of RCTs, it is

also acknowledged that in practice a large proportion of treatments are not based on any 'good' scientific evidence. The house surgeons were particularly aware of the lack of evidence to back up basic procedures. Dr Allen discusses the scientific basis of medical practices:

We get told at times that 50% of what we do in medicine has no basis and there is no good evidence to back it up which is pretty scary at times. But the basis that it has is some scientific thinking behind it...whereas something like the Quantum Booster, where the chap was interviewed in the *Listener* saying how it worked. It was absolute pseudo science, it just made your blood boil it was such rubbish, it was the ultimate thing of a little knowledge being a bad thing in that if you didn't know anything about science it all sounded very logical, but it was absolute rubbish. So I feel that that's the difference...that there is a reasonable scientific method going on behind it, and scientific thinking. It is true at times that it [medicine] doesn't have the evidence to back it up, but from the best knowledge you have so far, you are extrapolating, but in a reasonable sort of way, rather than just talking bullshit. (House Surgeon)

Dr Allen acknowledges that, although ideally the medical community would like to have scientific evidence for the majority of treatments, this is not always the case. Abbot (1988) alludes to this claiming that in public presentation, professions emphasise theory rather than practice, for they control the former much more than the latter. Thus, in theory medical practitioners have a scientific basis to their treatments. In theory, they know the statistical probability of a patient's chances of survival. In theory, patients have a choice about their treatment. But this is not the way it always works in practice. The fallibility of conventional medicine has been illustrated by studies into medical uncertainty, which have found that physicians both disagree on and are inaccurate with respect to the diagnosis, treatment or evaluation of care (see Christakis et al, 2000:469). Further, this need for exactness and control amidst uncertainty results in institutionalised coping mechanisms that may compromise patient safety. Green et al (2000) investigated dishonesty among resident physicians,³⁵ discovering that 15 percent would misrepresent a diagnosis in a medical record to protect patient privacy, 14 percent would fabricate a laboratory value to an attending physician, and five percent would lie about checking a patient's stool for blood to cover up a medical mistake.

³⁵ Two versions of a confidential survey using vignettes were randomly distributed to all internal medicine residents at four teaching hospitals in the US in 1998. They achieved a response rate of 67% Green et al (2000).

These problems are exacerbated by a norm of understanding and forgiveness between physicians. Conventional medicine has established a system (especially in the hospital environment) in which criticism is discouraged, with rituals that normalise mistakes that would otherwise be seen as a professional emergency (Pietro et al, 2000). Pietro et al (2000: 794) suggest,

...the commitment to exactitude dissolves when errors happen. Then, clinicians and managers may behave in a way that limits investigation...we use the subjectivity and complexity of medicine to rationalise and justify error.

On the other hand, the medical community promotes peer review as a means of maintaining professional standards and ethics, a direct contradiction to the norm of non-criticism. Thus, one can see a complex medical culture that accommodates the contradiction between perceived control and achieved control over illness. This functions to maintain the constructed 'difference' between alternative and conventional medicine, representing medicine as objective, controlled and consistent, made possible by the unspoken 'rules of the trade'. A number of the doctors interviewed suggested that doctors would frequently round up statistics to provide a "simple" statistic that is "easy to remember". This may mean averaging out a number of different conditions, as we saw in the media debate, or "bumping up" a specific percentage. This is one method of rationalising attempts to represent conventional treatments, and indeed conventional medicine, as more effective or more in control than it actually is in practice.

5.5 The scientific mind

Although five of the six doctors interviewed conceded that there is a lack of evidence for a certain proportion of medical treatments and practices, they also emphasised the use of the 'scientific mind', when evidence could not be obtained. By the 'scientific mind' they were referring to training in the natural sciences, with a comprehensive understanding of scientific methods and processes. For these medical practitioners, the 'scientific mind' separates alternative and conventional medicine in terms of both the use of experience and observation of outcomes. When asked about the difference between doctors' use of

experience as a basis for treatment and alternative practitioners' 'experience', these practitioners perceived 'experience' as a legitimate basis for treatment only when accompanied by knowledge of science. Although not viewed as ideal, they viewed scientifically unproven medical treatments (i.e. treatments that have not undergone stage three clinical trials) as legitimate because they have been explained and accepted by "rational, objective scientific minds" (Dr Baird). Thus 'experience' is only a legitimate gauge of efficacy for medical practitioners. Further, according to the doctors interviewed, even if stage three randomised controlled trials have not been conducted, a scientific mind ensures a consistent understanding of how particular treatments work, with 'consensus' regarding how they can be explained scientifically. Dr Baird reinforces the importance of at least having an understanding of how a treatment works scientifically:

We don't really have a lot of evidence for a lot of the basic stuff that we do, stuff that has worked for centuries...I suppose...there is a similarity between [that] and alternative treatments, but, on the whole usually we are able to explain scientifically why we think it will work. (House Surgeon)

Dr Baird emphasises the ability of doctors to provide patients with an explanation as to why treatments work even in situations where there is no evidence, no randomised-controlled trial. A scientific approach is constructed as an essential bedrock for doctors' use of 'experience' as a basis for medical practices. Although acknowledging the lack of 'scientific' evidence for a significant proportion of practices, these doctors maintain the validity of these treatments by articulating the importance of being able to offer a 'scientific' explanation about why they are effective.

Claims about the importance of scientific knowledge were not confined to doctors, with a number of the alternative practitioners stressing the value of scientific knowledge. When asked to describe what she meant by 'natural medicine', Anstey emphasised the importance the Christchurch College of Natural Medicine places on their students developing a scientific understanding of the body. She states:

When I'm talking about natural therapies I'm talking about the sort of training that encompasses the science subjects if you like; anatomy, physiology, pathology. In herbal medicine, additional subjects would be phytopharmacology, botany and materia medica, clinical skills etc. In massage the focus would be more on anatomy and the muscles and

pathology and physiology appropriately. With aromatherapy it's the same. You learn it appropriate to that discipline. All of these subjects are based on some understanding of the human anatomy...I think it is something that those in allopathic medicine do not acknowledge that people *are* trained in these disciplines. There are a lot of people who also work intuitively, and that is a whole other area of healing. We teach an understanding of what's normal and when to refer on [to doctors]. I don't think that is necessarily understood or appreciated. (Co-Director of the Christchurch School of Natural Medicine)

This rhetoric disrupts the conventional practitioners' use of the 'scientific mind' as a means of separating their use of experience and their ability to explain processes 'scientifically' from that of alternative practitioners. By providing training in the sciences and using terms like pathology, physiology and anatomy, the co-director of the Christchurch School of Natural Medicine disrupts the boundary between the knowledge held by these practitioners and conventional practitioners. Anstey describes herbal medicine as "botanical medicine", further aligning her profession with traditional scientific knowledge. The use of natural science terminology contests representations of alternative medicine as exclusively new age, mystical and spiritual. In using scientific terminology, these two directors construct themselves as both herbalists and scientists, disrupting what conventional medicine constructs as the 'difference' between alternative and conventional medicine.

5.6 Evidence-based medicine: The doctor-patient relationship

If there is a 50-50 chance something will go wrong, then 9 times out of ten it will.

- Paul Harvey, 1979 ³⁶

Evidenced-based medicine does not merely validate or invalidate medical treatments; it has a huge impact on the practitioner/patient relationship. As Dr Robinson states above, the practitioner "know(s) what will happen" down to one percent. The prominence of RCTs dictates the dialogue between practitioner and patient, setting the standard for what interactions between practitioner and patient are deemed useful or beneficial for the patient. Interactions and treatment practices that are not based on scientific evidence, or the biomedical model, become irrelevant. Samson (1999:179) comments on this trend:

The realisation that bodies are also people complicates the task of medicine, for people have emotions, character and unpredictability. The increasingly common high-technology medical procedures such as scans, computer imaging, organ transplants, radiotherapy and chemotherapy...are predicated quite explicitly on the idea of the body as a machine.

The features of the biomedical paradigm create a knowledge base, which in part dictates the form that the body takes within the hospital setting. The established mode of practitioner/patient interaction becomes the only 'ethical' method of interacting with the patient. The authority of the medical expert rests on his/her ability to diagnose and to treat through isolating symptoms, to connect organs, tissues and symptoms, and to see disease exclusively in physical terms. In this context, the patients have come to be seen, and to see themselves, as objects of medical investigation (Stacey, 1997:101). Foucault (1973:xv) describes this relationship between the doctor and the patient as a "simple, unconceptualised confrontation of a gaze and a face, or a glance and a silent body; a sort of contact...by which two living individuals are trapped in a common, but non-reciprocal situation". This lack of reciprocity facilitates the reproduction of the practitioner as objectifier and the patient as objectified.

The junior doctors interviewed stated that a medical practitioner is expected to be efficient in time spent treating the patient, focusing on symptomatic diagnosis and treatment based on evidenced-based medicine. Dr Calder suggested that in-depth interaction with patients and reflection on the patients' emotional concerns would be viewed as "a waste of time by other doctors" and neglectful of other patients. Thus, consensus regarding efficiency within conventional medicine also determines the type of care that the patient receives. The consolidation of the position of conventional medicine involves the development of expectations and norms that are readily reproduced by younger doctors as they attempt to adjust to a hierarchical system focused on strict adherence to protocol and procedure. Patient numbers restrict time and thus doctor/patient interaction.

³⁶ Quoted at www.chemistrycoach.com/fields_of_mathematics.htm

As argued in Chapter 3, the medical encounter and doctor/patient interaction is also regulated and shaped by medical technologies that encourage further abstraction the physical body (Samson, 1999:16). The person is removed from the diagnostic process as body parts are analysed, reduced to a collection of cells, numbers or shades of colour on a computer screen. These technologies contribute to the reproduction of the biomedical model in hospital treatment, abstracting from the human body, and in turn, regulating and limiting doctor/patient interaction.

5.7 Predicting treatment outcomes

As far as the laws of mathematics refer to reality, they are not certain; and as far as they are certain, they do not refer to reality.

- Albert Einstein quoted in J.R. Newman's,
The world of mathematics, 1956.

The desire for control over outcomes, and the knowledge of the connection between treatment and prognosis, are essential to understanding the basis of conventional medicine. In the hospital setting, bodies are transformed into medical problems that practitioners can solve by means of deduction. Through group quantification of past cases, practitioners can predict how an illness will progress on the basis of documented symptoms. Despite the citing of data viewed as relevant to individual cases such as Liam's, 'success' or 'accuracy' is not viewed as important on an individual scale. These medical practitioners make no claim to accurately predict a certain patient's outcome, freely admitting that they have little idea of what will actually happen. Despite this acknowledgement, they insist that they can accurately - "down to one percent" - predict the outcome for certain conditions, taking into account the stage, growth rate, forms of treatment etc. In the media reports we witnessed the medical community repeatedly insisting that Liam had a 50/50 chance of cure with chemotherapy. This starts to unravel the inherent problem with the application of statistics on an individual level:

The problem is for an individual patient you don't know what's going to happen. We are still poor at that. You can sort of adjust their risk a little bit. People have designed computer programmes to combat this problem so you can actually do it very specifically. The more prognostic data you have, the closer you can get to the likely outcome but you

still can't say exactly what's going to happen. But we would be closer than any of these alternative folk. (Dr Robinson - Oncologist)

As Dr Robinson states, it is impossible to provide an accurate prognosis for an individual. The key phrase here is “you can sort of adjust their risk a little bit”. Adjusting the risk as the patient goes through conventional treatment when you have “more prognostic data”, allows the medical community to continually reassess the probable outcomes. The response of the medical community to patients who vary greatly from the medical prognosis, or do well with alternative therapies, is that it was a spontaneous remission (one in ten thousand), or the practitioner did not have enough data at the time to give an accurate prognosis (McKee, 1988). These rhetorical strategies that explain inconsistencies between prognosis and outcome assist the ‘claims making’ that consolidates the legitimacy of biomedical treatments. Dr Robinson acknowledges the uncertainty within conventional medicine but also uses this notion of uncertainty to construct boundaries between alternative and conventional medicine. Stating “we would be closer than any of these alternative folk”, she presents “alternative folk” as less accurate, less certain, and doctors as better predictors of outcome, differentiating between the level of ‘uncertainty’ in conventional medicine to the uncertainty of alternative medicine.

Through experience, trial and error, and networks of communication, the medical community *is* able to provide fairly accurate prognoses, and legitimate the superiority of their treatments through the same process. However, it is important to acknowledge the fallibility of the biomedical model, and to recognise the way institutional structures and the other mechanisms described below (e.g. RCTs, medical journals, professional consensus) maintain its dominance despite the uncertainties relating to individuals. It is not that biomedicine is invalid, but rather, that validity is a product of ongoing social processes. The boundary work evidenced here is an ongoing struggle to qualify biomedicine, to explain or justify anomalies. These uncertainties or glitches in biomedicine and the institutional arrangements surrounding it, increasingly visible to the public eye, heighten efforts to justify practices through rigorous scientific method.

Moreover, they illustrate the incomplete, but ongoing, process of constructing certainty and ‘fact’.

5.8 Legitimation through RCTs

Until alternative treatments can come up with trials to back their claims, there is certainly no evidence for their usefulness.

- Dr Baird – House Surgeon

As summarised by Dr Baird, “RCTs are the key to the door of legitimacy for alternative medicine.” RCTs are the primary mechanism by which the medical community gauge the efficacy of a particular treatment or practice. In terms of boundary work, I am interested in the rhetorics surrounding the RCT that both promote and contest it as a measure of efficacy in medicine. How does the medical community ensure the primacy of the RCT, and how do alternative practitioners contest this?

Dr Baird is well aware of the problems of RCTs for alternative practitioners. Medical practitioners present this mechanism of legitimacy to alternative practitioners with the knowledge that in many cases it is the presuppositions of the clinical trial itself that alternative practitioners oppose (McKee, 1988:781). As I have previously suggested, many commentators have claimed that by using scientific methods to validate their treatments, specific alternative modalities (i.e. osteopathy, chiropractic and acupuncture) have lost their ideological foundations and have been in part assimilated by conventional medicine (Fuller, 1989:67). The development of organisations, regulations, qualifications, referral networks and standards of care, has created a standardised, regulated hierarchy that many alternative practitioners oppose. Anstey and Kearns, Co-directors of the Christchurch School of Natural Medicine, both emphasised the tendency of clinical trials to “test out of context”, missing the interconnectedness of the treatments under scrutiny with the patient and the natural and social environment. In isolating the “active compound” researchers neglect the influence of seemingly inactive, unimportant factors that in fact assist the “active ingredient”. The danger they see is the reduction of treatments to a single active compound, which in isolation has little effect, backing up those contesting the efficacy of alternative modalities (see McKee, 1988). As a result

Anstey and Kearns do not contest the usefulness of RCTs, rather they emphasise the tendency of this form of validation to exclude important elements of their treatment practices.

At the same time alternative practices are in part popular because of their presentation as pluralistic and mystical, as encapsulating faith, individualism and proactive healing (see Kaptchuk & Eisenberg, 1998; Ernst, 2000). Within the interviews, the lack of quantification and reductionism, the primacy of intimacy and reciprocity between practitioner and patient were used rhetorically to promote their professions. The representation of their practices as “exotic”, “mystical” or “holistic” (see McKee, 1988:873) is, in effect, the commodification of the image of the ‘healer’ or the ‘witch doctor’ from ‘primitive’ societies. Just as conventional medicine has aligned itself with science, alternative modalities have aligned their practices with non-western, indigenous ideologies. This does not mean that their respective practices are more ‘scientific’ or more ‘mystical’; this is merely an example of strategic positioning to generate ‘difference’, to promote particular practices, and to establish legitimacy. However, this relativistic argument does not negate the existence of inequality and subordination. One can clearly see that despite the niche market that the exclusion of alternative medicine from the status as ‘scientific’ or ‘objective’ may provide, the RCT (aided by medical journals, pharmaceutical companies, ethics committees etc.) still has the effect of excluding most alternative modalities from state legitimation, and thus state funding.

RCTs are a challenge or ‘barrier’ the medical community places between conventional and alternative practices, offering RCTs as a means of legitimacy with the knowledge that either the resources will not be available (McKee, 1988:872), or the process will not result in validation. The doctors interviewed saw the reluctance of alternative practitioners to complete RCTs as a sign that the practices they employ are ineffective. Dr Sykes explains why he thinks alternative practices have not been ‘scientifically’ proven:

There’s a lack of funding, and a lack of desire, because a lot of these people couldn’t be bothered to do a study. They can’t be bothered with the hard work and the discipline

involved with creating a study and writing it up, because it's hard work, and takes a lot of time and a lot of effort and they can't be bothered. Like the Nurses on the ward with the healing touch – they're buggered if they're going to give up their free time to do the study. (Gynaecological Oncologist)

Both McKee (1988:781) and Steeper (1986) argue that there are a number of irreconcilable problems with RCTs as a source of validity for alternative treatments. Steeper claims that trials often involve a restricted number of treatments, with no allowances for flexibility within the trial (as would happen in practice), and they lack a suitable placebo. These factors, along with the use of patients for whom conventional therapies had been ineffective, all affect the outcome of such trials. McKee argues the effectiveness of alternative modalities cannot be measured in the double-blinded trial, as this form of assessment cannot incorporate essential aspects in healing such as intuitive or psychic forces. She asks: "how does one give a placebo massage or healing touch session and then compare it to the real thing?" (1988:781) Furthermore, the resources available for alternative practitioners to construct trials are limited. Alternative practitioners are generally not experienced in scientific methods, many do not have access to facilities such as laboratories, microscopes, hospitals, secretaries, research assistants and libraries (McKee, 1988:782), resources that are taken for granted by those responsible for the validation of conventional treatments. Among alternative practitioners a counter discourse is developing that questions the legitimacy of this institutionalised measure of efficacy, its applicability to alternative paradigms of healing, and equality in terms of access to the knowledge and resources needed to utilise this mechanism. Although well aware of these criticisms, medical practitioners maintain that RCTs can fairly assess the efficacy of any kind of treatment, and further, the medical community would be only too happy to assist in the validation of any new or alternative treatment. They argue, as I will develop further in the next section, that it is a lack of organisation and a fear of invalidation that deters alternative practitioners from seeking scientific validation.

Essentially, RCTs are a discursive and regulatory strategy for consolidating boundaries between alternative and conventional medicine. The general effect of the RCT seems to be the establishment of order within uncertainty, to provide data for medical practitioners

so that they can be less uncertain than “any of those alternative folk”. However, the RCT is also a site of contestation as to whether it ‘weeds out’ ineffective treatments, or whether it ‘weeds out’ treatments not conforming to established medical knowledge (Vandenbrouke, 1998). The implication of this is that the RCT should not be viewed as transcending social and political forces, and, as I will demonstrate in the following sections, it is a site of contestation in terms of its function to reproduce the dominance of biomedicine.

5.9 Pseudo science and “lazy practitioners”

The apparent refusal of alternative practitioners to validate their practices through RCTs leads these medical practitioners to conclude that this is because they are “lazy”, “stupid”, “ill-informed” or “just plain devious”. What begins to emerge here are the discursive processes used to consolidate particular methods of legitimation. The doctors claim validity for their practices through science. Alternative medicine is suspect because it is not scientific. When science is used by alternative practitioners it is presented as “pseudo science”; as Dr Allen said, “it’s a case of a little knowledge being a bad thing”. We can see that ‘what is scientific’ is contested, with doctors constituted as those who best recognise ‘good science’. Thus, the more ‘work’ alternative practitioners put into ‘talking science’, the more work conventional medicine puts into clarifying what ‘science is’:

A frequency machine costs two or three thousand dollars. We looked at one because someone brought one in...To me I thought it was pseudo-science. Pseudo science in a black box! The patient thought the same actually – the patient who brought it in – yes! I don’t think that’s appropriate. I think we can tell people where to go for that information but it has nothing behind it to say it is helpful (Dr Robinson – Oncologist).

Although the medical community demands scientific explanation and testing, when alternative practitioners attempt to locate their practices within the scientific paradigm, explaining their treatments with scientific jargon, they are viewed as creating a false impression:

A lot of the alternative medicines that are widely supported are based on the sort of pseudo-science, so it’s sort of fudge-science – science that people have bullshitted

basically, to make it sound right. It's presented in a way that people can understand it, and it can be put in a fairly simplistic way without too many facts having to spoil a good story. (Dr Sykes – Genealogical Oncologist)

The result of pressure from the medical community to 'get scientific' has resulted in alternative and conventional practitioners entering into a contestation over what constitutes science. Dr Sykes reacts to the simplification of scientific explanation by alternative practitioners. He argues that alternative practitioners use the public's support for, and basic knowledge of science, to market their frequency machines by offering plausible, but erroneous explanations about the effects of the machine. Undoubtedly certain alternative practitioners do not use science to mislead patients about the merits of their treatments (Green, 1997:39), just as it is certain that some doctors also mislead patients through dubious scientific explanation. What is interesting is the discursive contestation over what science is, as alternative practitioners attempt to insert themselves into the rhetoric of science that has maintained the dominance and legitimacy of biomedicine.

What became increasingly clear as the interviews went on was the difference in attitudes among the alternative practitioners with respect to treatments like the quantum booster machine. Although two of the practitioners had a positive view of this particular therapy, the two directors of the Christchurch School of Natural Medicine aggressively opposed the quantum booster machine describing it just as the doctors did - as pseudo-scientific rubbish:

There have always been machines or some kinds of functionality approaches with almost a deity like power attributed to them...History has discredited the whole damn lot, and will continue to do so, because that's not actually how healing happens - through a machine. [I]...get saddened by the number of instant disciples that are tagging on to the coattail of this sort of thing... If it's got a three-pinned plug – forget it! (Peter Kearns – Co-Director of the Christchurch School of Natural Medicine)

Kearns reacts by contesting the medical community's efforts to implicate all alternative practitioners in what he views as the 'quackery' of a few. Both Kearns and Anstey 'work' on separating themselves, and their institution, from what they see as "radical" alternative treatments. They see this as important as they are generally "lumped in the same basket as everyone else" (Kearns), branded with treatments that they do not support. They

construct 'difference' between alternative modalities, labelling themselves "conservative alternative practitioners" (Anstey) who are more rational and objective than other alternative therapists. This is a strategy by which these herbalists can break away from the more 'exotic' practices of alternative practitioners like intuitive healers, thereby disrupting across-the-board discrediting of alternatives by those practising conventional medicine.

5.10 Contesting validity: Treatment outcomes

Just as the doctors seek to consolidate the features of their treatments, articulating how one should assess the validity of a particular treatment, alternative practitioners are also involved in the process of articulating what they consider to be a valid or effective treatment. The alternative practitioners I interviewed focused primarily on the importance of the mind, the spirit and nature in healing, although this varied considerably between practitioners. Like the doctors, these practitioners were intent on consolidating their territory and position. They did this through explaining the limitations and shortcomings of the biomedical model and the importance of their particular paradigm of healing. The reaction of the alternative practitioners to the charge of not seeking evidence to validate their treatments was mixed. The three most common responses were firstly that patients are satisfied without 'scientific proof', secondly, that, in general, evidence-based medicine is an illusion sustained by the medical community to legitimate their practices, and thirdly, that evidence does exist, but the medical community does not consider it 'scientific'. These practitioners did not condemn science or evidence-based medicine; they merely denied its primacy in the legitimisation of treatments. One practitioner responded to the demands of the medical community for evidence to support alternative treatments:

I don't worry about it. I now recognise that it is their lack of information that is asking for proof, when I am well aware that a high percentage of treatments in medicine are unproven. (Samantha Atkins - Healing Touch Therapist)

These practitioners were all extremely confident of the efficacy of their treatments, but more importantly, that patient feedback and satisfaction was the most important and only necessary method of gauging the success of particular treatments. They viewed the

medical community as hiding behind the 'veil of science', protecting their occupational territory rather than optimising treatment outcomes. These practitioners contested the dominance of conventional medicine by focusing on the inability of the biomedical model to treat the whole person. In order to promote healing, they argue, it is essential for a practitioner to incorporate the whole needs of the person, rather than merely focusing on the physiological aspects of disease. A symptom or condition may be cured with a drug, but does this reach the actual source of the condition and what other factors could be addressed that might prevent reoccurrence? Further, these alternative practitioners unanimously agreed that this focus on the symptom, test results and evidence, rather than the patient, breaks down client/practitioner communication. Atkins emphasises the impact of evidence-based medicine on the practitioner/client relationship and its effect on healing:

Health professionals do not listen to what these people are saying – they are so engrossed in telling these people that they have X days, weeks and months, it is a completely negative approach. I would ask back to these people, how can they explain the people that say I'm going to be really positive, go on the diet and no I'm not having your drugs which are poison, and they turn up in six months completely cured... There are physicians themselves around the world that will say, one of the biggest problems is the negativity not only of the client, but of the health professional. What are we talking about – we are talking about energy. Speech is energy and if it's negative it breeds negative. People come to me and they are so distressed about the complete negativity at every visit, every visit they are being put down, there is a lack of respect for them as individuals, there is lack of respect for their thought processes... One of the things that I do work at is not only doing work on their multiple energy systems – I work on trying to make this really positive place, a positive experience. We do not know what the outcome is going to be, we can't play that game. Let's try and get all the positive things in place for them. (Healing Touch Therapist)

This practitioner has a very different view of quality care, emphasising the vast importance of creating a positive environment for her clients. Describing chemotherapy as "poison" she views 'positive talk' as quintessential to healing, especially in cancer patients. She promotes positivity, openness, empathy, intentionality and acceptance, contesting what she views as the negativity of conventional medicine. The focus here is on the natural progression of the body, and the ability of the patient to heal his or her self, rather than the symptomatic focus of biomedicine. Atkins views the attitude of the patient and the practitioner as primary in the healing process. The practitioner does not have the

right, or the knowledge, she argues, to predict the outcome. The practitioner's role is establishing an emotionally safe and positive environment, within which healing (which does not necessarily mean the disappearance of disease) will occur. She views evidence-based medicine as disrupting the healing process, dehumanising the essential relationship between the practitioner and the client. Atkins contests the medical community's attempt to control outcome, romanticising disease by promoting a view of cancer as a natural progression that should not be interfered with. Moreover, she argues that in an attempt to provide an accurate prognosis, doctors may in fact affect the patients' attitudes, and the possible outcome of the treatment. A grim prognosis may in fact produce a grim outcome, ironically reinforcing the legitimacy of that prognosis and biomedical knowledge. Thus, we have a counter discourse of empowerment, self-help and natural cycles. From this point of view biomedicine tampers with the sacred rules of nature. This contests the importance of 'cure' in treatment, challenging the premise of biomedical care. It also contributes to representations of alternative practitioners as healers rather than curers, talking rather than treating, caring rather than knowing. This consolidates the 'differences' set out in tables 4.1 and 4.2 (pg104 & 105), differences that contribute to the reproduction of stereotypical representations of alternative modalities.

According to all the alternative practitioners, conventional practitioners focus on the negative, "disrespecting the thought processes of the patient" (Samantha Atkins), treating the patient as a physical entity, rather than a mix of spiritual, psychological, physiological and social elements. Although ambivalent towards RCTs, these practitioners viewed assessment and a certain level of regulation as very important, especially in terms of gaining state recognition and thus funding. However, the common theme was that measurement of treatment outcomes and patient satisfaction would be the best method of regulating standards of care. Ambiguity surrounding the development of RCTs and the implications of strict protocol on the natural flexibility of their practices was prominent amongst these practitioners. They viewed scientific method as having the potential to nullify their practices, invalidating their professions due to the incompatibility of paradigms of care. Hence, there is no clear intention among these practitioners to develop RCTs, but a clear desire to organise assessment based on outcomes. The avoidance of

RCTs³⁷ by some alternative practitioners is a method of sustaining *their* occupational territories, and retaining the authenticity of their practices. The perception of the doctors interviewed is that if alternative practitioners really believed their treatments ‘worked’, they would complete RCTs and prove the efficacy of their treatments. For these alternative practitioners, avoiding involvement in ‘pure’ evidence-based medicine (i.e. trials that meet the criteria of biomedical researchers) is a strategy to maintain autonomy, self-regulation. It is a way of distinguishing them from biomedicine, which they view as an important reason why people seek their services. Systematic evaluation goes against their philosophy of treatment, as one practitioner emphasises:

The thing that seems to be forgotten is that every single person is an absolute individual and there are no two the same, therefore the responses are not going to be the same.
(Samantha Atkins - Healing Touch Practitioner)

As Atkins states, her treatment programme involves flexibility, intentionality and spontaneity. There is doubt from all these alternative practitioners that current methods of assessing treatments or practices would do justice to their treatment practices, and could even be used to invalidate them. Moreover, as suggested earlier by Anstey, trials have been done on most alternative treatments but the medical community does not see them as scientific, and thus ignores them (see Ezzo et al, 1998). These practitioners claim that these trials are designed to allow for individuality, flexibility and holism. They are focused on outcome rather than explanation, but these allowances make the outcomes invalid in the eyes of conventional medicine.

Despite these frustrations, the increasing usage, popularity, and most importantly, success, of chiropractic, acupuncture and osteopathy, has paved the way for other alternative practices to be judged on outcome rather than scientific theory. Willis (1994:66) suggests the growing emphasis on the outcome of treatment rather than the underlying theory of treatment, seen in the experience of chiropractic in New Zealand, has made the actual basis or philosophical foundations of the treatment decreasingly important. However, it is clear that seeking legitimation through outcome is a very slow

³⁷ This is not to suggest that practitioners do not support other forms of assessment, but rather, they generally oppose those that require strict adherence to biomedical protocol – double-blind trials.

process, and clearly, establishing a scientifically 'legitimate' explanation of treatments is the most efficient method of seeking validation. Certainly, the doctors interviewed were unimpressed with outcome statistics, unless the way the treatment worked could be 'satisfactorily' explained. They contested the use of outcome as a measurement of validity, suggesting that alternative therapists maintain and promote their legitimacy through a small number of successful patients that would have recovered anyway. Furthermore, the medical practitioners commented on the fact that if they wanted to, they too could present many successful individual cases, as well as the statistics to "prove it works for more than a small number of people".

5.11 Medical journals: A case of exclusion

If it's not in the *Lancet* it's not valid!

– Colleen Anstey, Co-director CSONM

One of the key features of medicine over the last two hundred years has been the rise of the medical press (Bynum et al, 1992). In terms of particular mechanisms that construct, and in particular, consolidate institutional boundaries, medical literature plays a vital role. Medical evidence in respected journals provides the basis for medical decisions and thus, medical encounters. Medical journals are responsible for maintaining existing medical standards and ethics, excluding trials that do not support existing approaches (Dickerson et al, 1992; Garattini and Liberati, 2000), and ensuring the dominance of scientific method and evidence in the medical encounter. Hence, medical journals such as the *Journal of the American Medical Association (JAMA)*, *The Lancet*, the *British Medical Journal (BMJ)* and the *New England Journal of Medicine (NEJM)* play a primary role in the dissemination of medical knowledge globally, and in particular, the publication of the results of RCTs. Medical journals have tight restrictions on the nature of the information included especially in relation to scientific methods and ethics. A Consultant Physician writing for the famous American medical journal, *The Lancet*, Vandenbrouke (1998:2001) emphasises the function of medical journals in excluding the results of trials that do not support existing theories of illness:

Contemporary medical knowledge reflects a delicate interplay of facts and theories, each contributing to a better understanding of disease and treatment. Research results which confirm established theories of physiology, drug actions, and other tenets of medicine are more likely to be published in medical journals, and more likely to be accepted by practising physicians and researchers. Research that conflicts with established theories may have difficulty reaching print. Medical journal editors largely determine what research will be disseminated, and which will be ignored.

Medical journals are a forum through which medical knowledge is legitimated and disseminated. By promoting scientific method (and excluding those not considered 'scientific') and the biomedical model, these journals are a quintessential mechanism by which the medical community legitimates its practices. The interviewed medical practitioners clearly stated that if treatments were not discussed in the medical literature, they could not be effective. Just as sociologists rely on sociological journals, doctors rely on medical journals for updates and recent developments in their field. In effect, medical journals control what treatments are considered legitimate within the medical community. Their editorial policies dictate what may or may not be included in the publication. Thus, these journals act on the patient insofar as they act as gatekeepers for what treatments might be applied to patients. Dr Calder reflects on how he defines 'conventional' medicine:

I guess it comes down to what's in the literature. Conventional medical treatments are those based in the medical literature...so something that may seem alternative ten years ago, if it has been researched and followed up could often find its way into conventional medicine these days. I guess from our perspective that's where the line is between alternative and conventional. (House Surgeon)

Although he recognises the validation of treatments that were previously viewed as invalid within medical literature, Dr Calder defines as 'conventional' medicine only those treatments included in the medical literature. For this doctor, medical journals draw a line (that is continually shifting with medical advances) between conventional and alternative treatments; they are an institutional mechanism through which doctors can legitimate their decisions and distinguish them from alternative treatments. He concludes, "if it's not in the literature, then it probably doesn't work". Much the same position is articulated by Dr Allen:

Well the problem is that they [alternative treatments] don't appear in medical journals or randomised controlled trials or anything like that...in which case my assessment is that a fair proportion do very little. (House Surgeon)

Medical journals and textbooks are in effect the 'handbook' of effective treatments for each medical speciality. Dr Calder suggested that in fact many treatments that were not included in the medical literature had now "found their way into conventional medicine" and indeed for some treatments such as acupuncture and chiropractic this has been evident. The language "found their way" is interesting in light of the immense difficulty chiropractic, osteopathy and acupuncture experienced when attempting to publish results in medical literature. This suggests that luck was the major factor in their acceptance, rather than validity or perseverance. This provides insight into part of the process of producing medical knowledge, the result of things "finding their way" into the system, rather than a discovery of a system.

In maintaining strict protocol with respect to what is published, medical journals effectively suppress the publication of trials of treatments that are not considered 'conventional'. In fact, Vandenbroucke (1998:2003) argues that medical journals filter out trials that confuse or contest existing assumptions:

Somehow, much like case-control studies, randomised controlled trials do show a willingness to please, a willingness to please the people who set them up. Of course, that is not an absolute. There are good examples of randomised trials with results that were completely different from what was hoped. Yet, overall, a willingness-to-please element is present. It is nothing to be ashamed of, for history of science has taught us that it also exists in physics and chemistry. I suspect that an amalgamation of small investigator biases, small defects, exclusions, secondary analyses, and the like, explain the positive results of so many trials on homoeopathy. But, these things must also happen in trials of allopathic medicine. By definition, this is hard, or even impossible, to see, because in allopathic medicine we never know when we delude ourselves. Only when theory shifts do we see it happen.

Vandenbroucke argues that medical journals reproduce the biomedical paradigm of illness by publishing only what is already accepted as valid knowledge or practice in medical circles. Steeper (1986) reinforces this with the example of acupuncture, and the focus on its effect on pain within the medical literature. Because there is a measurable, objective, structural basis for understanding how acupuncture works to alleviate pain (it is 'known' that it causes the brain to produce endorphins – natural morphine like

substances), this facet of the profession has been publicised in the medical literature. However, other aspects of acupuncture have not been published in these journals because there is no established scientific explanation for how they might work. Thus, there is a tendency in the medical literature to reject treatments and practices that cannot be 'satisfactorily explained' despite the results of clinical trials.

Medical journals are the gatekeepers to legitimation, and as a result, state funding of medical treatments. A study in America demonstrated that despite the increasing interest in and awareness of complementary medicine among orthodox health professionals in the last 30 years, the cumulative number of clinical trial-type articles within the medical literature on complementary practices has not increased significantly (Barnes et al, 1999). Some commentators are also suggesting that 'progress' within biomedical research is delimited by the demands of medical publications. Knottnerus and Dinant (1997:1110), Department of General Practice, Maastricht University, explain the effect of such strict protocols:

In using strict criteria in reviewing manuscripts for publication, we should worry about risk avoidance by clinical researchers. They might focus their energies on topics where the methodological criteria of reviewers and editors can be most easily met, rather than studying real life clinical problems which present substantial methodological problems. Such "criteria bias" is to be prevented, since medicine based evidence is a prerequisite for evidence-based medicine.

Thus, the influence of the medical journals' protocols results in medical researchers focusing on trials that potentially reinforce existing practices, trials that will not attract the degree of scrutiny given to investigations into fringe practices. Furthermore, Knottnerus and Dinant (1997:1110) argue that the effect of the pressure for 'pure' scientific drug trials has been that doctors are increasingly confronted by patients taking multiple long-term medications, but have no proper data on evidence-based drug cessation. In the effort to ensure the 'pure' scientific data demanded by medical journals, scientists do not allow for the 'impurities' of everyday medical practice. Biomedical research has become focused on scientific process, to the point of being at odds with medical practice and patient behaviour.

Medical journals are powerful actors in constituting what is an effective treatment. They are the primary medium through which knowledge is disseminated and legitimated, providing a method by which conventional medicine can protect its occupational territory, a method by which access to public funds can be restricted to those practices in alignment with the biomedical model. They are a method of consolidating boundaries, establishing the line between valid/invalid, effective/ineffective, scientific/non-scientific, providing a representation of what works and what does not. The effect of journals is a double-edged sword for the medical profession, both maintaining their dominance in health care, and potentially limiting the evolution of their treatments.

Journals of 'alternative' medicine are also influential players in contemporary health care. They include; *The Journal of Alternative & Complementary Medicine*,³⁸ *Alternative Medicine Review*, *Natural Medicine Journal*,³⁹ *Holistic Health Journal*, *Atrium Review*,⁴⁰ *Qi*,⁴¹ and *Free Spirit Magazine*,⁴² to name a few. These journals have been developed to promote alternative health care practices and, in particular, to disseminate up-to-date information to practitioners. The *Alternative Medicine Review* is a peer-reviewed journal dedicated to providing accurate and clinically relevant original articles, abstracts and literature reviews for practitioners of preventative health care. A collaborative organisation, the editorial board is comprised by a mix of natural therapists, doctors and academics, a good example of a move to professionalise alternative knowledges, using mechanisms such as peer review, and terms like 'clinical practice', traditionally associated with biomedicine. The term 'clinical' has connotations of detachment and objectivity, creating a sense of seriousness and professionalism. Such publications represent a push for consensus within alternative modalities, an acknowledgement of the need for consistency between practitioners and an ongoing method of disseminating knowledge. Doctors and academics on the editorial boards of these journals increase the legitimacy of alternative knowledges, constructing an 'orthodox alternative' to conventional medicine. The naturopath used this language during the interview, classing

³⁸ Observational and analytical reports on treatments outside the realm of allopathic medicine.

³⁹ A physicians guide to clinical research.

⁴⁰ Journal on the health of body and mind by natural means.

⁴¹ Journal of traditional eastern health and fitness.

herself as an “orthodox naturopath” because she had trained at an “orthodox college”,⁴³ attends metagenic seminars,⁴⁴ and is focused on collaborating with (but not being incorporated within) conventional medicine. These rhetorical strategies and activities, including the use of journals, shift the boundaries between alternative and conventional medicine, and stratify alternative modalities. The journals, like the metagenic conferences or the ‘orthodox’ colleges, are ways of ordering knowledge and practices, establishing ethics, regulations and research methods. In this way legitimacy is constructed for certain alternative modalities, and the dominance of conventional practices is contested.

Another interesting feature of these alternative medical journals is the use of pharmaceutical companies for financial support despite a history of criticism from alternative organisations of biomedicine’s alliance with drug companies. For example, the international pharmaceutical company *PhytoPharmica Natural Medicines*, which distributes natural products worldwide, sponsors the *Natural Medicine Journal*. This contests the authenticity and multiplicity of ‘natural medicine’, as products are standardised on a global scale. I will elaborate further on this issue in the next section.

The reaction from the medical community to these alternative medical journals has been swift, with accusations of incompetence and the development of journals such as *The Scientific Review of Alternative Medicine* published by *The Council for Scientific Medicine*. Members of the Council include five Nobel Prize winners and a multitude of other top medical physicians and researchers. Containing articles with titles such as: “On Deciding When Something is Real”, “In Defence of Science over Pseudoscience” and “Promoting the Unproven, and more”, this journal is focused on critiquing the claims of the material published in alternative journals. On their home page the journal’s editorial board makes a collective statement warning physicians of the new alternative journals

⁴² A journal focusing on ‘personal transformation’.

⁴³ She classed the college as orthodox because it only taught a limited number of practices: herbal medicines, nutritional supplements, enzymes and bach flowers. Other naturopaths use a wider range of techniques.

⁴⁴ Metagenics Inc. is a company that researches, develops and manufactures herbal remedies and nutritional supplements. Jeffrey Katke founded Metagenics Inc. based on the principles of providing quality products, backed by rigorous scientific data in a cost effective manner. Metagenics funds ongoing research to both develop new products and provide a scientific evaluation of existing products.

that advocate, but do not objectively assess, alternative medicine treatments.⁴⁵ Thus, we have a counter-counter discourse in medical circles, a new mode of boundary work, attempting to develop and organise a riposte that limits the potential of the alternative medical journals to organise and legitimate their knowledge/s through conventional mechanisms.

5.12 The pharmaceutical industry

A common discourse within the media debate and particularly within alternative magazines such as *Nexus*, is the influence of pharmaceutical companies who sponsor RCTs and disseminate information about the drugs they sell through medical journals (Saks, 1992:189), thus determining what treatments may be offered within conventional medicine

A recent article in the *New England Journal of Medicine* (Stelfox et al, 1998:101-106) examined the influence of corporate funding on scientific and medical opinions. Using the case of calcium-channel-blockers (controversial drugs used to treat patients suffering from high blood pressure and heart disease) it found that the views of medical specialists on this drug were likely to be heavily influenced by the source of their funding. Of those in favour of the drugs, 96% had financial relationships with manufacturers. In contrast, just 37% of those against their use had financial ties to the companies, while 60% of those who were neutral had links (Stefox et al, 1998).

Garattini and Liberati (2000:846) reiterate this arguing that financial incentives are controlling the direction of research as researchers are drawn to areas likely to give the best possible financial return. This, they suggest, has led to a gap between public health needs and the areas on which research actually concentrates. Many older drugs are marketed on the basis of older, what is now considered, poor evidence, because there are no financial incentives to improve this evidence by conducting new trials. The interviewees also highlighted this concern, with a number of practitioners (both

⁴⁵The *Scientific Review of Alternative Medicine*'s home page is <http://www.hcrc.org/sram/>

alternative and conventional) commenting on this influence in medical treatment. Dr Sykes explains:

...I think the things that really get pushed are the drug therapies because the drug companies have got a lot to gain from it, and I think they're quite instrumental in disseminating information with regard to drug therapies, but they're often the ones with the big trials. The drug companies have the money to support the trials, so the trials get done relatively well, and then they've got the money to spread the information through conferences, and drug reps. The drug companies are the biggest supporters of medical research. So surgical therapies and alternative therapies get poorly researched, and so the medical fraternity gets to hear about the benefits of them slowly. (Gynaecological Oncologist)

It is commonly accepted, as we see from Dr Sykes's statement, that the pharmaceutical industry has a powerful role in what treatments are viewed as valid or invalid. With access to resources, capital to invest, and the possibility of huge returns, these companies influence what treatments become available. This adds another factor into what we consider legitimate medical knowledge; another actor that has an influence on what is considered a valid or invalid medical treatment. What is important here is that this is acknowledged by these medical practitioners, which problematises the traditional medical discourse of medicine treatment as objective, and based purely on scientific fact. These practitioners demonstrated their awareness that the treatments they use are the products of political and economic struggles, at least in terms of the influence of pharmaceutical corporations. This disrupts the media projection of the medical profession as transcending the political and social forces that influence decision-making and public opinion. What emerges is a social process by which multiple actors such as researchers, pharmaceutical companies, and medical journals reproduce and consolidate what is considered valid or invalid.

As I mentioned earlier, the issue of the impact of commercial interests in research and treatment options is emerging within alternative medicine as well, as organisations become increasingly aligned with 'natural pharmaceutical companies'. What will be the impact of these alliances in terms of the authenticity of alternative practices? This development in part disrupts the authentic, micro, natural, apolitical representation of alternative modalities as 'alternative' professional groups attempt to gain corporate

funding for research from companies producing vitamins and herbal remedies who are keen to promote their products. Thus, the involvement of corporate interests in both conventional and alternative medicine complicates their claims of legitimacy, while at the same time being essential to the funding of research in either of these fields.

5.13 Professional consensus

Where everyone thinks alike, nobody thinks at all.

- Witte et al, 1991:296

What defines science is constructing consensus regarding what is or is not scientific. It is a product of social, political and economic processes. For both alternative and conventional practitioners, consensus is a very powerful tool for maintaining and contesting occupational boundaries. As I have indicated above, medical literature is a vital mechanism by which conventional medicine maintains its autonomy. Another function of medical literature, and international conferences, is to establish consensus, which involves making decisions regarding what treatments will be considered valid. The implication of this is that in a controversy the outcome is not determined by experiments, but by consensus (Dew 1998:119). Experiments that consolidate established knowledge and practices are proclaimed to be good experiments, and those that challenge this knowledge are written off as flawed. The implication of this is that alternative medical organisations could produce large scale, 'scientifically rigorous' RCTs, which would still be dismissed because the information contradicted the established consensus. Furthermore, according to Collins and Pinch (1993:101), this consensus has very little to do with science, and more to do with things like styles of presentation, the prestige of the scientists' university, the scientists' involvement and connections within scientific networks, and their nationality. Thus, legitimacy is in part a product of consensus, alliances, prestige and conformity to protocols regarding both research and practice.

According to Giddens, 'expert' or consensual knowledge is now 'chronically contestable' both within expert systems and between them and lay publics (1990). Alternative knowledges and practices are educating the public on alternative modes of treatment, contesting the consensus established by the medical community. Even though medical experts quoted the internationally agreed cure rate for Liam's condition, certain facets of

the public and particular publications (i.e. *Nexus*, *Healthy Options*, *The Southland Times*) remained pessimistic about how this figure was established. The ordering of alternative knowledge by alternative organisations not only establishes consensus among alternative modalities, it also contests existing consensus, challenging the notion of 'pre-existing order' as perceived in the case of science. In the scientific community, science is not presented as about consensus, but rather the discovery or refinement of knowledge, and to a certain degree, this is the attitude of the medical practitioners I interviewed. However, shifts in the status of alternative to medicine like acupuncture and osteopathy illustrate the constructed aspects of science. As Dew (1998:119) states, the acceptance of alternative treatments has not, and is not, based on a successful scientific experiment that proved the practices worked. Rather, arguments and alliances develop, compromises are made, and allegiances are won. Although well disguised for centuries, consensus and organisation resulted in the establishment of biomedicine, and now they are being used to both defend and contest its dominance.

5.14 Holistic care

'Holistic' has long been the key term for describing alternative therapies (see McKee, 1988; Coward, 1989; Frohock, 1999), and certainly, these interviews illustrated the importance of holism for particular alternative practitioners. Although interpretations of what 'holistic medicine' actually constituted were contested between these actors, all the practitioners (both alternative and conventional) acknowledged to varying degrees the importance of a 'holistic' approach to health care. In fact, as I will demonstrate, both the alternative and the conventional practitioners used the notion of 'holistic medicine' as a mechanism to support their treatment practices and differentiate their practices from the 'other'. Both the oncologists interviewed used the term 'holistic' to describe what they considered to be an 'alternative treatment', but they also insisted that they too provide a certain level of holistic care, a contradiction worthy of further scrutiny.

When asked about the important of 'holism' in the hospital setting Dr Sykes responded with the following statement:

I believe very strongly that you shouldn't just be treating people with surgery and drugs and radiotherapy. You need to be treating them as a whole person and caring for them, I think caring is a good term...I think we do try and we have a team of social workers and nurses and dieticians and physios. We work as closely as we can with the community carers to provide something that does flow and does answer people's needs on a greater level. But there is a big gap that we leave people with when we finish their active treatment, and say "off you go into the big wide world", and there's a void there...there needs to be somebody who can help them with their problems, carry them through, help them believe they are going to do well and help them believe that they are living their lives in the right way to give them that confidence. And we don't do that very well. I would like to see improvements in that way. I'm quite keen on the idea of case managers who follow people all the way through, a mid-wife type person who steers them through and offers them emotional and physical support, and helps coordinate their care, and who is a non-physician person. (Gynaecological Oncologist)

This 'talk' about caring for the patients' emotional needs was prominent when the doctors were asked about the role of 'holistic care' in the hospital system. The oncologists stressed the value of a holistic approach to cancer treatment, both suggesting that, to a certain level, their departments provide this type of care to cancer patients. Although they perceived this facet of treatment as a weakness of conventional medicine, they both considered that conventional cancer treatment is moving towards a more integrated approach to illness. Dr Robinson expresses here views on holistic health care:

We would say we offer holistic care in a sense. We have social workers and nurses and people to talk to them, dieticians, that type of thing so they do get that. I think in the current climate we would have trouble offering touchy feelies and things like that...we would need funding. We couldn't do it on our current budget. (Oncologist)

What develops is an acknowledgement of the importance of 'holism' from both the oncologists, followed by their 'version' of what this constitutes i.e. "social works, nurses and dieticians", and lastly, a deliberate separation of this approach from the "touchy feely" approach of alternative practitioners. As I talked further with the doctors it was clear that although they viewed holistic care as *beneficial* for the patient, they believed it had little or no influence on the actual symptom or disease, and thus, should remain secondary to conventional methods. All the doctors interviewed expressed some support for 'holistic medicine' but were also in agreement that it was not financially viable for the hospital system to treat those facets of the patient that were not factors in a 'cure':

...we need to build up a team that does address the whole needs of the patient. But there's always an extent to which you can't, you can't go into people's homes and lives and

minds, and answer their entire problems, a lot of which may be nothing to do with their disease, whether they be socio-economic or emotional. (Dr Sykes – Genealogical Oncologist)

The implication is that, although these medical practitioners viewed alternative practices as ‘good for the mind and the soul’, they tended not to associate this with the actual treatment of disease. An inherent contradiction exists in that these medical practitioners emphasise the importance of the patient’s attitude towards the treatment provided, and the influence this has on the outcome. They emphasise that “it’s those with the positive attitude that get better”, but this is viewed as a personality trait rather than a product of the treatment process or the doctor-patient interaction. Thus, we have a discourse surrounding the palliative nature of holistic care, alongside recognition of the influence of ‘attitude’ on outcome for cancer patients. The contradiction is obvious; those patients who have a positive attitude “do the best”, but it has no influence on the treatment.

What is significant here is not whether or not a particular approach is holistic, but rather the degree to which holism is embraced, how discourses of legitimacy are constructed in relation to this concept. When asked about teaching a holistic approach, Dr Sykes stated:

I don’t give teaching in this area to medical students. I don’t even have time to cover the basis of gynaecology with students. I like to talk to them about holistic and patient centred care, but you do see them switching off – they seem to say “all right then, we know all this shit, let’s get onto the real stuff”, the stuff they’ll need to know to pass exams. It’s no good being the touchiest, feeliest person in the world if you don’t know anything. Bottom line, good knowledge is the basis of our treatments, and if you don’t have that knowledge people are going to miss out. (Gynaecological Oncologist)

The two important points here are that firstly, medical students are taught to avoid the ‘non-scientific’, and secondly, although these practitioners view ‘holistic medicine as therapeutic’ they considered it of little or no benefit to the patients’ condition. Of course these two positions are self-perpetuating; if the specialist sees no worth in holistic approaches to health care or treatment (in terms of treatment of particular symptoms), the medical student stops listening. As one can see from Dr Sykes’s statement, he contrasts holistic care with knowledge; patient-centred care is “touchy feely”, whereas evidenced-based medicine is knowledge-based treatment. He suggests that a focus on holistic medicine neglects the most important part of treatment, science; holistic care results in

people “missing out” on the evidence-based medicine. For these practitioners, allocating time to talk in-depth to the patient would merely result in neglecting other patients. Dr Baird suggests that more time is not necessarily productive:

If you went to see your GP you would have tops 10 minutes, 15 minutes for you and that's it; end of consultation. With alternative treatments usually there is more of an opportunity to open up and to chat; not like a consultation where you are focusing on a medical problem. It's more of a social thing. (House Surgeon)

The statement, “it's more of a social thing” is particularly important as it illustrates the view that many in the medical community have towards holistic care. If the focus is taken away from the physiological symptom (which invariably in a 1-hour session with a naturopath it would be), valuable time is wasted which could be spent treating other patients. This constructs a discourse surrounding funding allocation; only symptomatic, ‘non-social’ therapies should be funded by the state. It is this discursive practice within the medical community that shapes what the state will fund. Thus the medical community reproduces, in the form of discourses around funding priorities, its own belief system.

This illustrates the process by which the medical community both encapsulates and reconstitutes what is meant by holistic care, using this concept as both a method of nullifying alternative treatments and legitimating their own practices. Holistic care becomes a double-edged sword, espoused when complementary, but debunked when it is the primary focus of treatment. The medical community establishes a boundary between additional holistic care (social workers, dieticians, counsellors etc) and the holistic practices of alternative practitioners. Holism is a mechanism by which alternative medicine is defined and debunked, and by which conventional medicine is legitimated. The claim of holism by conventional practitioners negates the worth or usefulness of alternative therapists who seek to use this concept to differentiate themselves from biomedicine. In effect, it is a rhetorical strategy to weaken the mechanism that alternative practitioners have traditionally used both to legitimate their practices and critique symptomatic medicine.

All of the alternative practitioners interviewed considered their practices holistic, using terms such as “patient-centred”, “individualised” and “spiritual” to explain their paradigm of health care. These practitioners used the concept of holistic care in much the same way that the medical practitioners used RCTs. They viewed symptomatic invasive medicine as destructive and reductionistic, contesting the ability of biomedicine to integrate the mind, body and the spirit. Holism is used by these practitioners to promote the particular features of their treatments that were ‘better’ than that of conventional medicine. Each had a different understanding of what constituted holistic care, but each used this term to encompass the important aspects of their profession. Atkins expresses her view of holistic care:

I see the patient sitting in the middle of a circle and on that circle I see the physician or the appropriate medical person, but I also see the nutritionist, the physiotherapist, and I see the iridologist, and the energy worker and the craniosacral and I will see all these people on the circle because every single one of them has got a section to offer – no-one is any greater than anyone else, but they are making up the whole. I would put the spiritual person there as well because in actual fact that individual is a complete individual comprising of huge quantities of subjective information as well as objective information all equally balanced. All we have got at present is a tiny little bit standing up and saying they are right. (Healing Touch Therapist)

This practitioner expressed her understanding of what constituted holistic treatment in a similar fashion to Dr Robinson (*vide supra*) - as an integration of multiple actors into the treatment of a person. One can clearly see the similarities between these conceptualisations of holistic care. Atkins views holistic treatment as integrating multiple paradigms of healing with collaboration between various modalities. In this light, holistic medicine constitutes the inclusion of multiple knowledges within health treatment. Similarly, the oncologists viewed holistic care as the provision of multiple services by specialised teams, rather than an integrative health treatment. In contrast, Corbett describes what she views as a holistic approach to health care by describing what she does in practice:

I tend to see ill health as being an imbalance...I would say, let's see if we can find out what is out of balance in the body. I would go through all the questions on that form, look at their iris with a torch very briefly to find out if there is anything screaming out at me in the iris. I would definitely work on the feet and I would look at; has there been any major stresses in their life like death or a major crisis or marriage separation – anything that may have been a cause to the depression. If there is nothing majorly gone wrong I would

work on the feet and say are the adrenal glands down and are your blood sugars up and down. Sometimes they will come in with a diagnosis of depression and I would say I think you have got adrenal exhaustion. They've been working 70 hours a week for the last ten years with no holiday. You have low mineral levels and your body can't produce adrenaline effectively to cope with stress. All I would do, I wouldn't give St Johns Wort, I would just balance their diet taking away the things that are stressing their adrenal glands and give them a product called quotocol which is a product which allows the body to produce adrenaline again. I would suggest they go away for a week on holiday (Naturopath).

Corbett constructs holism as attention to multiple factors in diagnosis and treatment, as opposed to integrating multiple actors. She also includes symptomatic diagnosis and treatment as part of treating the whole, and scientific explanation as playing an important role in holistic healing. She suggests that the client should go on a holiday, talks to them about their emotional problems, but also prescribes a substance to treat the particular symptom. Further more, she explains 'scientifically' how this particular substance acts on the body. This disrupts holism as in opposition to science, to the physical, constructing a holistic approach to healing as integrative, rather than prioritising the emotional or the spiritual. For Corbett, holism means using multiple knowledges, substances and methods of diagnosis in treating illness. She promotes self-sufficiency in treatment, with a single practitioner incorporating the whole needs of the patient. Feet (reflexology), eyes (iridology), 'story' (psychotherapy), and symptoms are all integrated to uncover the nature of the problem. Anstey and Kearns from the Christchurch School of Natural Medicine have a similar view of holism. They argue that having a holistic approach to medicine did not mean rejecting science, symptomatic diagnosis, statistics or invasive techniques. To the contrary, they argue that these are all important factors for practicing holistic medicine. Anstey and Kearns suggest that holism by definition does not exclude – it is the integration of multiple paradigms, practices and techniques.

As we can see, these alternative practitioners are involved in both articulating and contesting what is holistic, interpreting what it means according to their own position. The reaction of the medical community to this method of boundary work has been for many to push for the integration of 'holistic' principles in the medical profession. An article in the *New England Journal of Medicine* illustrates this reaction:

Oncology teams in the clinics must ask patients about their use of alternative medicine and about any distress they are experiencing. We must reassert the principle that we treat the person, not the disease alone. This basic principle seems in some jeopardy today, when at least some patients, for whatever reason, do not tell us about their distress and do not expect that we will treat it as part of their conventional medical care (Holland, 1999:1759).

This is, in part, an effect of the challenge from alternative modalities in terms of their ability to offer aspects of treatment neglected in conventional medicine. One can see the developing interaction between paradigms of care, a contestation over what constitutes that particular paradigm or particular mechanisms associated with that paradigm, as practitioners use multiple mechanisms in an attempt to legitimate their practices. In order to promote practices, practitioners must incorporate aspects of other actors, but also maintain territory, by contesting the use of one's own mechanisms by other actors. There is a constant tension between integration to ensure progress and meet consumer demands, and exclusion to maintain one's position, to reproduce 'difference'.

5.15 Anecdote

The significance and influence of anecdotal evidence is well illustrated within the media debate, and it became an issue of contestation within the interviews. Both *The Southland Times* and the *Sunday Star Times* used the 'stories' of children with cancer to legitimise their position in relation to the Holloways' actions. In these interviews, the role of anecdote was contested, particularly in relation to alternative practitioners' usage of 'story' to aggrandise their practices. As a result, it is argued here that anecdote plays an important role in the boundary work done by these practitioners.

The attitude of the doctors interviewed is that one can produce a positive anecdote for treating cancer with water, but this does not mean that water is an effective treatment for cancer. Within medical journals such as *JAMA* and *BMJ*, and for the conventional practitioners interviewed here, anecdotal evidence is not a means of verifying treatments, rather, it is an ongoing way of ensuring that existing clinically proven treatments are effective. In terms of the use of anecdotes by alternative practitioners, the general perception was that they are easy to comprehend, heart-warming and generally used to

construct an ideal (rather than accurate) representation of particular alternative treatments (Studdert et al, 1998:1610). Another theme that emerged was the perception of these doctors that alternative practitioners deliberately select the few success stories, using these statistical anomalies to promote their practices. Dr Allen alludes to the persuasive nature of anecdotal evidence:

They have got anecdotal cases, and anyone who's got a smattering of science knows that anecdotal versus controlled trials; it's the weakest form of evidence versus the strongest...at the same time for the public to see individual cases, that's a very strong thing to see a very happy little boy running round, that's a very strong emotional sort of thing to see, rather than some cold hard scientific fact. (House Surgeon)

The reason for using anecdote, according to these doctors, was the PR value. In order to sustain public appeal without scientific proof, alternative practitioners create elaborate 'stories' that depict the miraculous healing of chronic or terminally ill patients, providing the public with hope that is not provided by conventional medicine. As a result alternative practitioners are considered to be insidious, abusing patients through the provision of misinformation:

The feeling has been that because these treatments have no proven benefits as in, benefits that we can assess, that practitioners of these treatments are basically fleecing people who are dying, of their money, and providing them of an unrealistic expectation of the outcome. (Dr Baird – House Surgeon)

The ability of alternative practitioners to promote their practices, heightening public awareness of their abilities, generated significant animosity among the more junior doctors interviewed. Not having to deal with "patients on their deathbeds", alternative practitioners were viewed as "in it for the money", "ripping people off" and "taking money from the weak". The focus of the doctors' criticism was the use of anecdote, "disturbed" by alternative practitioners citing warm, personal, inspiring and easily understandable anecdotes to promote their practices. This is particularly interesting in light of the use of anecdote in the presentation of medical successes within the media. The story of Steve Pullman, father of a child recovered from neuroblastoma through chemotherapy, was used to promote the effectiveness of conventional cancer treatments

(*Sunday Star Times* 14/02/1999:4). Dr Calder comments on his perception of alternative practitioners as dishonest and lacking integrity:

I think they're horribly overstated. They get a very good slant in the media; they do a very good PR image of themselves. I think most of them are unwilling to give any conclusive information about their therapy, their success rates or anything like that...They push the natural side, the nice smiley people promising good results. It's very easy to come across well if you don't have to support your claims and they've got the liberty of being able to do that. It's very easy to tell someone with cancer that you're going to cure them, but a lot harder to say that they are going to die. Undoubtedly the person that hears the news from either one of those two is going to be a lot more impressed with the one that is going to cure them. This makes it a lot easier to have a good PR. (House Surgeon)

The junior doctors construct themselves as martyrs, lacking the support or commendation they deserve, but persevering in order to protect the naïve. They present as strong, able to cope with the negative side, rather than provide false hope. These doctors present 'the public' as a misinformed, emotive mass who make flippant decisions, based on style rather than substance. Alternative practitioners are viewed as manipulative, dishonest charlatans that capitalise on the natural healing process:

I have no doubt that the [alternative] therapists are dishonest. They may be misguided in which case I believe they're stupid and ignorant people. Most of them are moneygrubbers and that's what annoys me and other conventional doctors...People are going through enough stress at the time as it is without adding a financial drain on them to that extent. So no, I have no doubt that they are dishonest. (Dr Calder – House Surgeon)

Invariably, the doctors interviewed made the link between dishonesty and anecdote. They viewed anecdote as the primary mechanism by which alternative practitioners draw public support for their practices (Angell & Kassirer, 1998:839). The important point here is that contesting the validity of anecdotal evidence is a method of contesting the validity of alternative medicine. It is not about invalidating the 'stories' presented, but rather the practices that these stories promote. This is evidenced in that fact that anecdote is only contested when it is used to promote the position of alternative medicine. When the Cancer Society, the Crippled Children's Society, or World Vision appeal for donations, they do not use statistics proving how successful their organisations are, they use individual cases because it is anecdote that connects people to a particular situation or event. Anecdote is only constructed as deceptive when it is used to challenge orthodoxy.

When it is used by government organisations, anecdote is viewed as a way of connecting with the lay audience at a level they can understand. The point to draw out of this is that, just as alternative practitioners contest the legitimacy of the RCT, debunking anecdote is a means of limiting the ability of alternative modalities to legitimate their practices.

5.16 Contesting 'nature'

The issue of 'nature' and 'natural treatments' invariably comes up in any discussion of alternative treatments. As I came to expect, conceptualisations of 'nature' varied between practitioners, and interestingly, between alternative practitioners. A number of the doctors interviewed commented on the 'illusion of nature', arguing that orthodox medications were in fact derived from natural substances, and thus, natural therapies contained nothing that their orthodox counterparts did not. The house surgeons viewed 'nature' as a means of appropriating patients, capitalising on "a general cynicism" towards scientific developments (i.e. immunisations, GMO food, cloning etc...). Conceptualisations of nature for the alternative practitioners differed considerably, extending from the importance of natural compounds, to the respect for natural cycles and progressions. Each had a different understanding of the significance of nature in their profession, but all remained consistent in the insistence of its prominence in alternative practices. Atkins explains the importance of nature for her:

All living things have a life force/energy vibration. Some are of a slower vibration than others...recognising that all living things have a life force and under natural circumstances can live together in a balance indicates that we all impact on our surroundings...I believe that we should be guardians not controllers...should the natural world wish to demonstrate its latent strength and power then we clearly get the picture. Our 'puniness' becomes very apparent. I feel we should be respectful. We do not understand the intricacies of this life force, nor how intricate the balancing is...we are babes in the wood at this stage. (Healing Touch Therapist)

Due partially to the intuitive nature of Healing Touch Therapy, the focus is not on the importance of 'natural' compounds in treatment, but balancing the body in accordance with natural rhythms and cycles. The focus is on respect for nature, and thus the body, working with the person's natural cycles rather than 'fixing' their malfunctions. The herbalists, Anstey and Kearns, had a different view of the importance of nature, focusing

on the ingestion of herbs and natural products as nature intended, varying one's diet according to the seasons. The herbalists focused on Nature, whereas the healing touch therapist focused on the natural expressions of the body and the spirit, working with the body rather than attempting to control it. This illustrates the subtle but important differences in interpretations between alternative practitioners of what constitutes a natural treatment, and further, the role of 'nature' in healing.

The medical community's claim to use treatments derived from nature was rigorously contested by all the alternative practitioners, all maintaining that synthetic products do not contain the healing properties of natural products. Anstey argues that a herb works in a number of ways, some direct and some indirect. She states that no one understands how they work, but extracting the active compound and synthesising it misses the whole point of the healing process. Atkins continues this discourse around synthetic versus natural:

With reference the pharmaceutical world, most of the drugs have come from the natural world originally; they were then synthesised to make them 'consistent'. However I would suggest that the natural products still work better because they have a life force which the synthetic does not. The natural one can balance itself better to the need of the recipient. (Healing Touch Therapist)

This is an excellent example of boundary work done by alternative practitioners to establish 'difference' between their treatments and conventional treatments. We can see these practitioners develop their own explanations of 'nature', explanations contesting the ability of scientists to replicate nature, and the claims of conventional medicine as essentially derived from nature. We can see a dialogue where each develops rhetorical strategies to contest the legitimacy of the other, resulting in re-articulating of what is meant by science, nature and holism. In this way these phenomena evolve, shaped by the contest between actors, shaped by the position of those who promote them.

5.17 Conclusion

Medicine is not a science, it is an art that utilises science...Science is often wrong because you only need to look at the metamorphosis of science. What they were doing twenty years ago, oh hell we can't do that, we're doing something different today. In twenty years time they will be doing something different again. Right from Copernicus looking at the stars getting it totally right and the Pope saying that's wrong, because the scientists said it was wrong. But that's not a criticism, that's simply part of the

metamorphosis from a philosophical standpoint. But to hide behind the term science, in the sense that 'it hasn't been scientifically validated', is ludicrous. (Peter Kearns – Co-Director of the Christchurch School of Natural Medicine)

What I have illustrated in this chapter is the multiple strategies that are used by health practitioners to do boundary work. We saw the rhetorical use of 'scientific' method, the 'scientific' mind, 'scientific' evidence, anecdote, clinical experience, 'holism', and 'nature' to both promote and contest the validity of particular practices. What has been illustrated by this discussion of conventional and alternative practitioners' 'talk' is that all these mechanisms were used to a lesser or greater degree by both alternative and conventional practitioners. In Chapter 4 we saw the media construct ideal representations of alternative and conventional medicine. Conventional medicine was largely represented as 'scientific', 'evidence-based', 'ethical', 'professional' and 'objective', and representing conventional treatments as powerful and effectual. Alternative modalities were represented as 'holistic', 'natural', focused on anecdote and 'healing'. The treatments associated with alternative practitioners were presented as innocuous and non-invasive. However, the practitioners interviewed presented understandings of their modalities that disrupted the oppositions constructed by the media:

"We would say we offer holistic care."

- Dr Robinson, Oncologist

"Most of our treatments are derived from natural substances anyway."

- Dr Calder, House surgeon

"The truth is...if you look at our reference books they're all referenced at the back with heavy-duty science."

- Peter Kearns, Herbalist

We aren't 'way out' and weird, and we do have a lot of scientific stuff behind us... we're not just airy-fairy hippies who smoke pot and wave crystals over people...the stuff we are using is really scientific. You would be amazed...how scientific it is.

- Ann Corbett, Naturopath

The talk of doctors and alternative practitioners illustrates how they both create distinctions and also use parts of the 'other' to valid their own modality. These

practitioners are often attempting to both utilise the qualities of the 'other' (science, holistic medicine, nature), while at the same time maintaining the 'difference' that justifies their occupation of a particular territory. This brings us back to the idea of inscription. Alternative and conventional modalities are inscribed by each other, they are in part a product of their respective discursive practices. Further, this interconnectivity means that work is put into representing 'difference' to limit encroachment on one's territory. As a result we can see a continual tension between generating difference and seeking legitimacy through alignment with the 'other'. The oncologist, realising that holism is valued by many consumers of health care, explains the way medical patients are treated holistically, while at the same time maintaining his/her position as objective and scientific. The herbalist sees the power of alignment with science, and attempts to balance this with his/her orientation around nature and the individual. These are all strategies by which these practitioners occupy and contest particular positions. These are the strategies that are used by practitioners – they claim a particular quality, contest the 'quality claims' of another, and question the importance of particular qualities of treatment attributed to the other modality. Incongruities arise, and boundaries are blurred, as seemingly opposing actors attempt to claim the same qualities or use similar strategies of validation. Boundaries are reconstructed and consolidated as actors attempt to articulate their 'differences' by disputing the use of particular mechanisms. It is through this process that representations of alternative and conventional health practices are constantly constructed and reconstructed. And it is the sites of connectivity and contestation that necessitate ideal representations and rhetorical strategies to consolidate boundaries.

Chapter Six

Embracing complexity

6.1 Producing distinctions

What you see is what you represent

- Strathdee, 1995:201

This thesis has focused on illustrating how ‘work’ put into constructing and contesting boundaries is a fundamental process in the (re)shaping of networks of human and nonhuman actors. It provides insight into some of the strategies that are used by the media and health practitioners to both maintain and contest the boundaries between ‘alternative’ and ‘conventional’ cancer treatments. The power of these strategies is that the ‘differences’ they generate are often taken for granted as ‘natural’ distinctions between modalities that have particular inherent qualities. But as I have demonstrated in Chapters 4 and 5, in part, it is the work put into generating distinctiveness through certain representations that normalises or naturalises ‘difference’.

The media reports had the effect of normalising certain constructions of ‘alternative’ and ‘conventional’ medicine. Conventional medicine was constructed as ‘scientific’, ‘evidence-based’, ‘symptomatic’, ‘ethical’, ‘accountable’, having ‘integrity’, ‘qualifications’, ‘training’ and abiding by ‘stringent regulations’. Similarly, alternative medicine was constructed as ‘holistic’, ‘pluralistic’, ‘patient-centred’, ‘individualised’, ‘non-invasive’, ‘empowering’, ‘natural’, focused on healing as opposed to ‘cure’, prioritising ‘anecdotal evidence’ and ‘results’ over scientific evidence. Further, these representations were used to legitimate positions in relation to the Liam Williams-Holloway case. As seen in Chapter 4, in many cases this oppositional representation was used to critique both alternative and conventional cancer treatments, having a similar

effect - the reproduction of 'difference' and the construction of seemingly 'natural' distinctions between alternative and conventional treatments. The media reports reproduced oppositions such as scientific/unscientific, holistic/symptomatic, natural/invasive, creating an image of alternative and conventional medicine as mutually exclusive social phenomena.

These 'natural' distinctions were disrupted in Chapter 5. We witnessed health practitioners strategically contesting these 'ideal types', blurring the oppositions constructed within the media debate. The complexity of these social phenomena and their connectivity was most evident as these practitioners used the strategies of the 'other' to legitimise their practices. At times the alternative practitioners interviewed used science rhetorically to legitimise their practices, referring to the importance of 'evidence', 'ethics', 'objectivity', consensus, qualifications and regulations within their professions. Kearns (Co-director, Christchurch School of Natural Medicine) talked about the textbooks they provide for their students and the grounding of these in "heavy-duty science." He emphasised the momentum within particular alternative modalities to establish scientific explanations and data to support their treatment practices. Furthermore, Corbett (naturopath) focused on disrupting the view of alternative therapists as "new age", "mystical", "hippies", by emphasising the integration of scientific explanation, biomedical technologies (e.g. x-ray, blood tests, cat scans) and symptomatic diagnosis into her practice. These rhetorics contest both the media's and the conventional practitioners' construction of alternative practitioners as 'unscientific', 'unethical' and 'uninformed', and alternative therapies as lacking a scientific basis.

The media's 'ideal types' were further blurred as the conventional practitioners developed rhetorics surrounding 'holism', 'intimacy', 'nature' and 'flexibility' in biomedical care. Dr Sykes talked about not just treating people with surgery, drugs and radiotherapy but also providing holistic care in cancer treatment. He stated: "you [the doctor] need to be treating them [the patient] as a whole person and caring for them." Dr Robinson pressed the importance of a 'holistic' approach to cancer treatment, talking about her department's emphasis on providing individualised treatment according to the

patient's particular physical, social and psychological needs. Dr Calder further blurred the boundaries constructed by the media by talking about conventional treatments as derived from 'natural' substances, contesting the construction of conventional treatments as 'artificial' and 'unnatural'.

Moreover, in the process of incorporating 'holism' by using it rhetorically to construct legitimacy for their treatments, these medical practitioners both encapsulated and reconstituted what is meant by holistic care, using this concept as a method of both debunking alternative treatments and legitimating their own practices. They perceived holism as the integration of social workers, dieticians, and counsellors, constructing it as palliative but peripheral in medical practice. As a result, holism is espoused when complementary, but debunked when it is the primary focus of treatment. Moreover, the conventional practitioners' claims to holism have the effect of restricting the worth or usefulness of alternative therapists who seek to use this concept to differentiate themselves from biomedicine. This strategy weakens the mechanism that alternative practitioners have traditionally used to both legitimate their practices and critique symptomatic medicine.

This is not to suggest that these practitioners, both 'alternative' and 'conventional', did not attempt to reproduce the 'ideal types' seen vividly within the media debate. To the contrary, the practitioners I interviewed put a lot of 'work' into reproducing 'difference' between alternative and conventional medicine. However, they also disrupted this by representing sameness, as all to some degree utilised 'holism', 'nature', 'science', 'evidence', 'ethics' and so on, to legitimise their treatment practices. Some focused more on a particular strategy, a particular concept, a particular method of representation. Invariably, the conventional practitioners prioritised 'science', and the alternative practitioners, 'holism' and 'nature'. But these distinctions are not inherent; they are strategic. These distinctions are the result of alignments, strategic positioning, and organised claims-making. Practices classed as 'alternative' or 'conventional' are not inherently scientific or natural, holistic; rather, they are represented as such.

Actor-network theorists argue that the epistemic basis of the social order is given by this very process of establishing systems of differences, classification and category building (Latour 1988:171). They argue, as I have, that things are not given, they are assigned a place and marked as such. It is this very process of producing categories, of generating qualities and attributes, that has been teased out in this thesis. I have demonstrated the numerous strategies used by actors, both human (e.g. practitioners, patients, journalists, politicians, lobbyists) and non-human (e.g. cancer, imaging technologies), for inscription, the 'marking' of social phenomena as having certain qualities or features. 'Alternative' and 'conventional' medicine are created and maintained by these human and non-human actors. They are a result of past and present human activity. What we now consider to be 'alternative' and 'conventional' in medicine only exist, insofar, as actors continue to reproduce them. As Latour (1988:179) suggests, we should see both human actors and artefacts as configurations of practical knowledge whose character is about process and less about the "nature" of their components. It is important to remember that all statements about the world, (i.e. "this is natural...", "we are scientific...", "to be truly holistic you have to...", "to be ethical you have to...", "being professional means...") begin as fragile or weak assertions made by an individual or a small group. Weak assertions become hard facts as they find their way into textbooks, lectures, and publications. They become symbolic of particular groups or organisations, and thus, these representations come to be viewed as reflective of a 'natural order'.

As illustrated in Chapter 5, institutionalised mechanisms such as medical journals reproduce these assertions or 'facts', providing a basis for medical decisions and thus, medical encounters. They are an institutionalised means of legitimising and securing knowledge claims. They provide a means by which conventional medicine can protect its occupational territory, restricting access to public funds to those practices considered to be in alignment with the biomedical model. Institutional mechanisms such as medical journals, ethics committees, health and disability commissioners, and medical councils, contribute to the ongoing consolidation of the line between what treatments are considered valid/invalid, effective/ineffective, scientific/non-scientific, ensuring the dominance of 'scientific method' and 'evidence' in the medical encounter.

As I argued in Chapter 3, the 'ideal types' seen vividly within the media debate have also been absorbed into social commentaries, with the dynamics between alternative and conventional medicine fuelling the debate over whether or not society is experiencing a 'postmodern turn'. Some commentators argue that alternative medicine is a glimpse of 'the postmodern' (see Turner, 1992; Easthope, 1993; Siahpush, 1998), whereas others argue that this claim is untenable due the adaptation of certain modalities to the biomedical model (see Fuller 1989; Lupton, 1994; Saks, 1998). As suggested in Chapter 3, conceptualisations developed by social commentators of conventional medicine as 'modern', and alternative health practices as 'postmodern' are another form of boundary work. There is no doubt that alternative practitioners do represent themselves as focused on the individual, on narrative, and on the promotion of a plurality of truths regarding healing. Further, conventional practitioners do represent themselves as 'objective' and 'rational', focused on controlling disease. But so often within these debates it is forgotten that these are merely representations, strategies of promoting health care practices. The modern/postmodern theoretical debate is an abstraction of the rhetorical strategies used by health practitioners to position themselves and generate 'difference'. In the process of trying to conceptualise alternative and conventional medicine as indicative of the tension between modernity and postmodernity, social commentators reduce practices to fit these reductionistic paradigms, omitting complexities and contradictions in medical practices that do not fit into this conceptualisation. The result is the reproduction of the view of alternative medicine as inherently holistic, conventional medicine as inherently scientific. These representations produce that of which they speak - they produce distinctions between alternative and conventional medicine.

6.2 The evolution of cancer and medical knowledge/s

I propose that 'conventional' and 'alternative' medicine, and indeed cancer, are continually evolving, shaping each other, and acting on each other. Cancer is different now to what it was when it was first 'discovered'. We view it differently, treat it differently, it acts on our bodies differently and we think about it differently. Cancer is an

important social actor that influences the development of conventional and alternative knowledges, practices and technologies. Oncologists, cancer technologies, oncology departments, cancer organisations and oncology journals are produced and shaped by the way cancer acts on the human body. Each type of cancer creates different linkages, engages with a patient's body differently, creating a network in a patient's body attacking certain cells, organs, resulting in particular symptoms and responding to certain treatments. This network effect allows practitioners to visualise how particular cancers act on the human body. It also contributes to the evolution of cancer treatments as practitioners attempt to control cancer in light of these network effects. As new treatments and techniques are developed we learn about cancer, we develop new ways of viewing or treating it, and thus, it acts differently. The more we can visualise cancer, the more actors get involved (i.e. cancer society, neuroblastoma mailing list, experimental drugs, pharmaceutical companies and so on), thereby extending networks.

'Alternative' and 'conventional' modalities are continually evolving, developing new techniques, technologies, knowledge, organisations, strategies; and in the process, they influence the evolution of health care networks. It is a case of reciprocal inscription and modification as actors attempt to claim or contest particular positions within contemporary New Zealand health care. Alternative and conventional modalities are inscribed by each other; they are in part a product of their respective discursive practices. Further, this interconnectivity necessitates that work is put into representing 'difference' to limit encroachment into occupied territory. As a result we can see a continual tension between generating 'difference' and seeking legitimacy through alignment with the 'other'. The oncologist seeks to incorporate holism, and the herbalist to embrace science. This creates incongruities and blurs professional boundaries, as seemingly opposing actors use the same mechanisms of validation. The result is an increase in work put into reconstructing and consolidating these boundaries as actors attempt to articulate their 'differences' by disputing the use of particular mechanisms. It is through this cyclical process that alternative and conventional health practices are constructed and reconstructed.

6.3 Looking ahead

With the exception of Dew's (1998) study into medical heresy, there has been little sociological examination of the dynamics between alternative and conventional medicine in New Zealand. Further, there has been no significant research into the use alternative medicine in New Zealand or public attitudes towards alternative and conventional practices. Perhaps sociologists, like the doctors I interviewed, are expecting interest in alternative medicine to wane, for the 'natural health movement' to 'boom and bust'. Whatever the case may be, understanding the dynamics between 'alternative' and 'conventional' medicine is important for analysing both the present state of our health system, and the ongoing evolution of health services.

This study suggests that it would be interesting to examine other medical controversies, to see how boundary work is done differently with respect to other forms of illness, in other locations, and by other actors. It would be interesting to examine the strategies other practitioners use to do 'boundary work'; how practitioners practising both alternative and conventional treatments negotiate their position within our health care network. How do they balance often contradictory representations of alternative and conventional medicine?

Finally, although I have focused on analysing the processes involved in the construction of 'alternative' and 'conventional' medicine, at some point I must consider what can be done in light of this analysis to improve our health services? What changes can be made to improve health provision for New Zealanders? What 'progress' can be made in light of the results of this analysis? The danger at this point is to resort to reproducing the stereotypes of alternative and conventional medicine I have worked so hard to deconstruct. It would be easy at this point to suggest that alternative practitioners 'get scientific', and that conventional practitioners develop a more 'holistic approach'. But this reconstructs the 'problem' between alternative and conventional medicine around the very representations that I have sought to disrupt. I do not wish to end this analysis by reconfiguring alternative and conventional medicine according to my own view of their

best ‘qualities’. It seems to me that it is fruitless to deconstruct in order to merely reconstruct according to one’s own agendas. However, it also seems less than satisfactory to provide no indication of how to improve our health services. To do this I will return to what this thesis is about - diversity within both ‘alternative’ and ‘conventional’ medicine. This thesis has been about highlighting diverse understandings of what constitutes science and what constitutes holism. In keeping with this, in my mind what is needed is a dialogue that allows open and respectful discussion around these diverse understandings. A dialogue around understandings of ‘evidence’, ‘science’, ‘holism’, ‘nature’, ‘ethics’, ‘healing’, ‘cure’ would facilitate a better understanding of the connections between alternative and conventional modalities. This is not to deny their differences. To the contrary, differences need to be acknowledged along with a mutual understanding and appreciation of connectivity. For consumers to make informed decisions about the kind of health care they want they need to have ‘what is science’ and ‘what is holism’ played out. We need better journalism that does not play alternative and conventional medicine against one another. We need media reporting that acknowledges the complexity of health practices, and the multiple understandings of ‘science’, ‘holism’, ‘ethics’ and ‘nature’. We need public discussions that highlight that role of the media and public commentators in fuelling the polarisation of alternative and conventional medicine.

A paradigmatic dialogue would promote movement towards plurality in health care – a re-dispersion of power that would allow groups largely excluded from health provision, opportunities for access to state funding and recognition. Most importantly, a pluralistic approach is needed to support consumers’ increasingly diverse needs in health care. I would encourage movement away from attempts to find the seemingly impossible, and invariably hegemonic, ‘middle ground’. What is needed is a respectful dialogue rather than what we see at the present time - an antagonistic, mud-throwing polarisation. Communication between practitioners and a paradigmatic dialogue would precipitate an acknowledgement of both difference and connectivity.

Postscript



I heard about the death of Liam Williams-Holloway on the 28th of October 2000. Maybe it was inevitable, but like a lot of New Zealanders, I never quite thought it would happen. I cringed at the headline “Doctor Slams Liam’s Parents” (*The Press* 28/10/00) and the attitude of certain members of the medical profession towards this family in mourning. It made me think that as a sociologist, how easy it is to get wrapped up in the wider social issues. It needs to be remembered that this thesis was prompted by stories about a little boy and his fight against cancer, which, sadly, he lost. A loving family have lost their son.

The Holloways fought Liam’s cancer with him and they succeeded in giving him seventeen months longer than the doctors expected without chemotherapy. In retrospect it is easy to judge people’s actions. Regardless of what certain individuals in the medical establishment may say, in my view the Holloways did everything they could and more to help Liam fight his cancer. We don’t know what it is like to have cancer or to have a child with cancer until it happens to us. We cannot sit and judge those who chose a different path to the one we would choose. All we can do is support those who are forced to chose and hope that we never have to face that decision.

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Appendices

Appendix 1:

At the Laboratory Window: Science and Society Research Report

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Research Design

The aims of this pilot study were to: (a) acquire a sense of public attitudes and perceptions toward general and health science, (b) identify key areas of public ambivalence toward health science, and (c) try out the research design for the full-year project. The research design was influenced by three major factors. First, as part of the Christchurch School of Medicine Summer Studentship Programme, the study must be carried out by a student with limited research experience over the period of 10 weeks. Thus, the survey was designed explicitly to allow us to reach the target sample of 100 ($n=100$) in a shortest period possible. Second, a central goal of the pilot study was to collect information about public attitudes toward rather than their knowledge of various products of medical research (e.g., genetic engineering, cloning). Thus, we did not prompt with questions that evaluate the quality of their understanding about those technologies. Neither did we provide them with any technical definitions of these technologies. Third, this pilot phase was critical in developing a research strategy for examining the complexity of the decision making processes for health care consumers. In particular, we were interested in understanding how knowledge and experience consumers gain through multiple, and often conflicting, social roles interact with each other, leading them to make a specific choice for managing their health. This consideration led us to choose focus group interviews, rather than individual interviews, where participants can explore with each other how various factors enter into their decision making processes.

Through both quantitative and qualitative research methods, we tested the following hypotheses in the pilot study.

- Generally people regard science as a beneficial component of society.
- Many develop ambivalent attitudes toward specific products of science because of conflicting information available through the media.

- Most people lack understanding of processes by which scientific knowledge is constructed.
- As the level of scientific literacy increases, people become more selective in accepting or rejecting products of science.

Phone Survey

A random sample of $n=260$ residents was selected from the Christchurch electorate. The electoral roles from each Christchurch district (excluding the Maori role) were used to establish a random sample. The total number of residents on these electoral roles was divided by the desired sample size ($n=260$). This figure is used to as a measure between names on the electoral role to ensure names were selected equally throughout the whole population. We selected out the names, created a mailing list and sent letters out to all of the potential respondents.

Due to our use of the electoral role as our sample pool, we were restricted to people over the age of 18 who were enrolled on the electoral role. This meant a pool of approximately 240,000. Taking into account that each of the electoral roles were different in size (each close to 40,000), we selected the number of names taken from each electoral role in proportion to the size of each. As the electoral roles were in alphabetical order it was important to ensure that the names were staggered, so that we did not choose the Smith's (for example) in each electoral role. Thus, in the first role we began at the top left of the first page, in the second role we started at the bottom right of the second page and so on.

A letter that described the nature and the procedure of the study (including the protection of anonymity and confidentiality and the issue of consent) was mailed to each potential participant one week prior to the actual survey period. Then, they were contacted through telephone and asked if they would consent to participate in the survey. From the sample, 93 questionnaires ($n=93$) were completed. The demographic characteristics of the final sample closely approximates that of the total Christchurch population.

Each phone survey consisted 50 closed questions, including 10 questions pertaining demographic information. The rest of the questions were divided into five sections including: (a) general perception on science in society, (b) perception of New Zealand's performance in support for science, (c) individual's interests in science, (d) individual's attitudes toward genetic engineering, (e) general attitudes toward health science, and (f) individual's practices and beliefs on health science. Thirty-six out of 40 non-demographic questions used five-point Likert scales where respondents were asked

The Sample

The age distribution of our sample was excellent with each age group between 1-5% of its equivalent in the entire population (include tables). The only improvement could have been an increase in the 45-54 age group which was significantly larger in the entire population. The sex of respondents was well balanced, with 54% male and 46% female.

One variable that may have had a significant impact on the results was the high proportion of married respondents compared to that on the entire population. 71% were married or living with a partner, with 29% never married, separated divorced or widowed. Further more, 66% of respondents had children, which may have influenced the data.

Another important consideration is the employment status of respondents. 64% of respondents were employed (whether part time, fulltime or self employed), with a total of 36% not in employment. One has to take into consideration students, housewives and husbands, who may not be in paid employment but would not be considered 'unemployed' by the state. Thus, although 36% is a very high number, it needs to be viewed in context. The distribution of household income in our sample was almost identical to that of the entire population.

*The demographics of the entire population are sourced from SuperMap data.

Results

General Perception of Science in Society

A series of questions was asked at the start of the survey to gauge general support for science among the general public. This creates a platform through which specific attitudes towards certain aspects of science may be evaluated. Our first set of questions sought to measure support for science as a useful and beneficial facet of contemporary society.

99% of respondents agreed that science plays a useful role in society. Despite this general acceptance of science as beneficial, 76% believed that science could also have negative effects on society.

When asked to weigh up the possible negative and positive influence of science in society, 88% decided that in the last two decades, science has benefited more than harmed society.

82% of respondents agreed that scientists should be objective and not influenced by their own opinions, with 78% agreeing that scientists should be more aware of public needs and expectations.

When cross tabulated with other variables, we found that the respondents' level of education was related to the awareness of the possible negative effects of science. Further still, the higher the level of education, the more likely to agree that science can have negative effects on society.

Perception of New Zealand's Performance in Support for Science

When questioned on levels of support for science in New Zealand compared to that of other industrialised countries such as the United States or Australia, of the 65% that responded, 75% thought that support for science is inferior in New Zealand.

45% agreed and 33% disagreed (22% remained neutral) that scientific literacy is equal or better in New Zealand than other industrialised countries such as America or Australia.

88% of respondents agreed that the quality of scientific expertise in New Zealand is high, and 96% thought that advances made by New Zealand scientists have been significant.

We observed that respondents were adamantly supportive of the performance of New Zealand scientists, but considered public and State support for science, inferior to that of other Western nations.

Individual's Interests in Science

An important consideration within this study was the individual's interest and support for science and how this may be connected with factors such as education and information sources. We wanted to examine individual attitudes towards products of science and how these may relate to understanding of science, sex, income, marriage status and so on.

93% of respondents agreed, with only 5% in disagreement (3% neutral) that science was interesting and valuable.

67% of respondents agreed, but significantly, 30% of respondents disagreed (3% neutral) that their science education had helped them develop a basic understanding of how science works.

83% of men as opposed to only 57% of women, agreed that their science education helped them develop a basic understanding of how science works.

58% agreed, 23% disagreed and 20% remained neutral, that the media are helpful for collecting information about science related topics.

63% thought that the amount of information available in the media was insufficient, with 52% disagreeing that the quality of information in the mass media on scientific debates is high.

Individual's Attitudes toward Genetic Engineering

In general, respondents were supportive of genetic engineering, with 54% agreeing that it was generally useful, and 79% supporting its use in medicine.

Of those respondents supportive of genetic engineering, 83% supported cloning organs for transplant, 91% supported gene therapy, and 96% supported the use of genetic engineering for the development of new medicines and vaccines.

58% of respondents supported the use of genetic engineering for developing more nutritious food.

General Attitudes toward Health Science

General attitudes towards health science were positive.

76% of respondents supported an increase in the number of scientists who are doing research on health.

We also raised the question of public and private funding of health research, our hypothesis being that the public are supportive of public spending, but uneasy about private funding of health research. As a result:

93% of respondents were supportive of an increase in public funding and 82% supportive of an increase in private funding.

An often-debated issue in the medial community is the tension between long-term and short-term benefits. Is the pursuit of scientific excellence and the possibility of long-term benefits an adequate justification for public funding?

71% agreed that scientists should do research for international recognition regardless of whether it had immediate applications.

64% also thought that scientists should focus on research that will have some use within five years.

28% of respondents agreed that medical scientists could stop the flu if they tried harder.

71% thought that research based on modern science and technology is the only way to find a cure for major diseases.

Individual's Practices and Beliefs on Health Science

We were particularly interested in investigating individual practices, with a focus on if and where respondents got information about medical treatments.

31% of respondents always, 39% occasionally, 14% rarely and 16% never, collect information about a medical treatment before making a decision.

91% get information from their General Practitioner, 80% from specialists, 53% from technical publications such as medical journals and other health publications and 30% from the popular media.

38% thought that the medical community does not provide them with enough information about the potential benefits and risks of specific medical treatments (51% agreed and 11% neutral).

72% agreed that the Internet provides them with information about specific medical treatments.

Individual Attitudes Towards Specific Products of Science

Support for GMO food was split:

44% agreed and 42% disagreed that GMO food is an acceptable part of modern society (14% remained neutral).

However, 95% of respondents agreed that we should be concerned about the health risks on consuming food that contains a gene from another species.

72% of those in support of GMO food agreed that their science education helped them develop a basic understanding of how science works.

30% of females, as opposed to 70% of males, agreed that GMO food was an acceptable part of modern society.

We were interesting in the respondents' attitudes towards cloning and the results demonstrated the diversity of responses to this product of science.

48% of respondents agreed, 29% disagreed and significantly, 23% remained neutral. When asked whether cloning was morally wrong.

However, 75% agreed that it was a good idea to use a vaccine that contains a gene from another species to cure a fatal disease.

Of these who thought cloning was morally wrong, 78% were female and 22% male.

Another product of science that has received significant public attention has been that of child immunisations.

92% of respondents thought that child immunisations were important (4% for both disagree and neutral), with 98% agreeing that childhood immunisations have reduced the number of children with diseases.

94% agreed that the benefits of child immunisations are greater than the risks.

The final section of our survey examined public attitudes towards alternative medicine:

58% of respondents had received an alternative medical treatment.

82% of respondents agreed that doctors should incorporate alternative treatments into their practices.

87% agreed that patients should be encouraged by their doctors to seek alternative treatments.

Appendix 2:

Questions for Consultant Physicians

- Do patients using the services of your department also use alternative treatments; e.g. dietary, naturopathic or homeopathic based remedies?
- What alternative treatments do patients most frequently use?
- What is the response of doctors in this department to patients using alternative treatments?
- Does your department brief medical staff on how to respond to patients using or considering alternative treatments?
- How does your department assess the usefulness or dangers of specific alternative treatments?
- Would the department consider using alternative treatments within the hospital in conjunction with conventional treatment?
- According to your department, what differentiates 'alternative' treatments from 'conventional' treatments?
- On what basis does your department choose particular forms of treatment for its patients?
- To what extent can patients choose particular medical treatments?
- Why do you think people pursue alternative treatments?
- A survey I recently completed showed significant public support for alternative treatments. Why do you think this is?
- How do you think the medical community has been portrayed in the recent media debate over Liam Williams-Holloway?

Questions for House Surgeons

- There has been a lot of controversy over alternative cancer treatments recently: what do you consider an alternative cancer treatment?
- Have any of your patients undertaken or wanted to undertake alternative therapies?
- Do they talk to you about these alternatives and how have you responded to this?
- Why do you think cancer sufferers pursue alternative treatments?
- Do you think alternative cancer treatments can be beneficial?
- How do you gauge the usefulness of the various alternative cancer treatments?
- A survey I recently completed showed significant public support for alternative treatments. Why do you think this is?
- Do you think the medical profession is open to alternative forms of cancer treatment?
- Are there different attitudes among doctors to different forms of alternative treatments? i.e. diet vs. frequency machines.
- Would you respond differently to alternative cancer treatments if they were used in conjunction with conventional treatments?
- Is there a difference in the views of consultants and that of more junior doctors?
- On what basis are decisions made about various treatment options when people are diagnosed with cancer?
- I have heard that consultants sometimes use treatments because they 'know they work' when these treatments have not been through clinical trials? Do you see this as legitimate?
- Do you think that the media have reflected the views of doctors in the Liam Williams-Holloway case?
- Do you think media coverage has sided with certain views in Liam's case.
- Do you think parents have the right to choose alternative cancer treatments over conventional for their child? If not, why not?
- Do you think the state should subsidise alternative cancer treatments?

Appendix 3:

Questions for the Co-Directors of the Christchurch School of Natural Medicine

- What differentiates ‘alternative/complementary’ treatments from ‘conventional’ treatments?
- Does your clinic support all alternative/complementary practices – which ones, why?
- How do you assess the effectiveness of your treatments?
- How do you prove a treatment is effective?
- Do you think scientific proof is important?
- Describe the role of the practitioner in your profession?
- What are the most important principles you teach your trainees?
- Describe the significance of nature for your treatments?
- How do you view conventional cancer treatments?
- How do you approach cancer treatment?
- Do you see your profession and complementary to, or alternative to, conventional medicine in cancer treatment?
- Why do you think there is so much public support for alternative cancer treatments?
- How do you think the medical community view alternative practitioners and therapies?
- How do you think alternative practitioners are presented in the media?
- Do you think parents have the right to choose alternative cancer treatments over conventional for their child?
- Do you think the state should subsidise alternative cancer treatments? Which ones? Why these ones?
- Do you regulate your practitioners’ practices?

Interviews with Alternative Practitioners

- What do you consider to be an alternative treatment; how do you differentiate between conventional and alternative treatments?
- Why do you think people pursue alternative treatments?
- Do you think alternative cancer treatments can be beneficial?
- How do you gauge the usefulness of a cancer treatment?
- A survey I recently completed showed significant public support for alternative treatments. Why do you think this is?
- Do you think the medical profession is open to alternative forms of cancer treatment?
- Do you differentiate between the various alternative cancer treatments? i.e. diets vs. frequency machines.
- How do you measure the validity of your treatments?
- What is the role of science in your practise?
- Do you talk to your clients about conventional treatments, suggest whether or not they should use them?
- How do you think the medical community view alternative/complementary therapists?
- How do you think the media portrayed alternative medicine in the Liam Williams-Holloway case? Why do you think this is?
- How do you think the media portrayed conventional medicine? Why do you think this is?
- Do you think parents have the right to choose alternative cancer treatments over conventional for their child? If not, why not?
- Do you think the state should subsidise alternative cancer treatments?

Appendix 4:

Theoretical Sampling: Significant Stages in the Liam Saga

- ★ **The Chase:** February/March 1999 – Brendan and Trena go into hiding with Liam

<i>Sunday Star Times</i> 14/2/99 pg1	"Don't force boy's chemo, says advocate"
<i>The Southland Times</i> 15/2/99 pg1	"Support for parents grows"
<i>The Press</i> 16/2/99 pg4	"Saving Liam"
<i>The Southland Times</i> 13/2/99 pg1	"The family says"
<i>The Southland Times</i> 20/2/99 pg3	"Family remembers cancer pain"
<i>Nexus</i> Feb/Mar 2000 pg28	"Gaston Naessens's 714X treatment: another success story"
<i>Healthy Options</i> , June 2000 pg30-31	"Rex Major: Cancer, Hoxsey and a positive attitude"
<i>Sunday Star Times</i> 14/02/99 pg4	"Dad makes a plea for toddler"

- ★ **The Media Gag:** March/April 1999 – The Media are gagged from reporting on Liam.

<i>The Southland Times</i> 18/03/99 pg6	"Media ban"
<i>The Southland Times</i> 20/3/99 pg1	"Candles lit for Liam"
<i>Sunday Star Times</i> 07/03/1999 pg2	"Peaceful protest for Liam planned"
<i>The Press</i> 20/2/99 pg4	"How well do we look after our sick children?"
<i>Listener</i> 22/5/99 pg18-20	"Mind that child: Liam and the limit of parents right to chose"

- ★ **The Courts Renege:** April/May 1999 – The Holloways return home and tell their story.

<i>Sunday Star Times</i> 9/5/99 pg1	"How we survived on the run"
<i>Sunday Star Times</i> 9/5/99 pg5	"Quantum booster can't cure, says specialist"
<i>The Southland Times</i> 8/5/99 pg1	"Liam's parents unlikely to return before birth says family friend"

- ★ **Public Debate:** June/Sept 1999 – The Holloways do not seek conventional treatment – debate over this decision.

<i>Sunday Star Times</i> 8/8/99 pg1	"The big C"
<i>Sunday Star Times</i> 15.8.99 pg4	"More evidence needed that alternative therapies work"
<i>Sunday Star Times</i> 22/08/99 pg5	"Wishing on a rainbow cure"
<i>Sunday Star Times</i> 5/9/99 pg4	"Gullible folk unite - truth the only loss"

★ **Going “Exotic”:** Nov/Dec 1999 – Liam goes to Mexico for treatment.

<i>Southland Times</i> 13/11/1999 pg1	“Mum to join Liam in Mexico”
<i>New idea</i> 13/11/99 pg10-11	“You’re Liam’s last hope”
<i>The Press</i> 16/11/99 pg3	“Halberg trust stands by cancer-boy grant”
<i>Sunday Star Times</i> 14/11/99 pg3	“Liam appeal blasted by doctors”
<i>Sunday Star Times</i> 21/11/99 pg12	“Liam campaign criticised”

★ **Resorting to Chemo:** Jan/Feb 2000 – Liam regresses and the Holloways go to Germany.

<i>The Southland Times</i> 13.1.00 pg1	“Liam receiving cancer treatment in Germany”
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